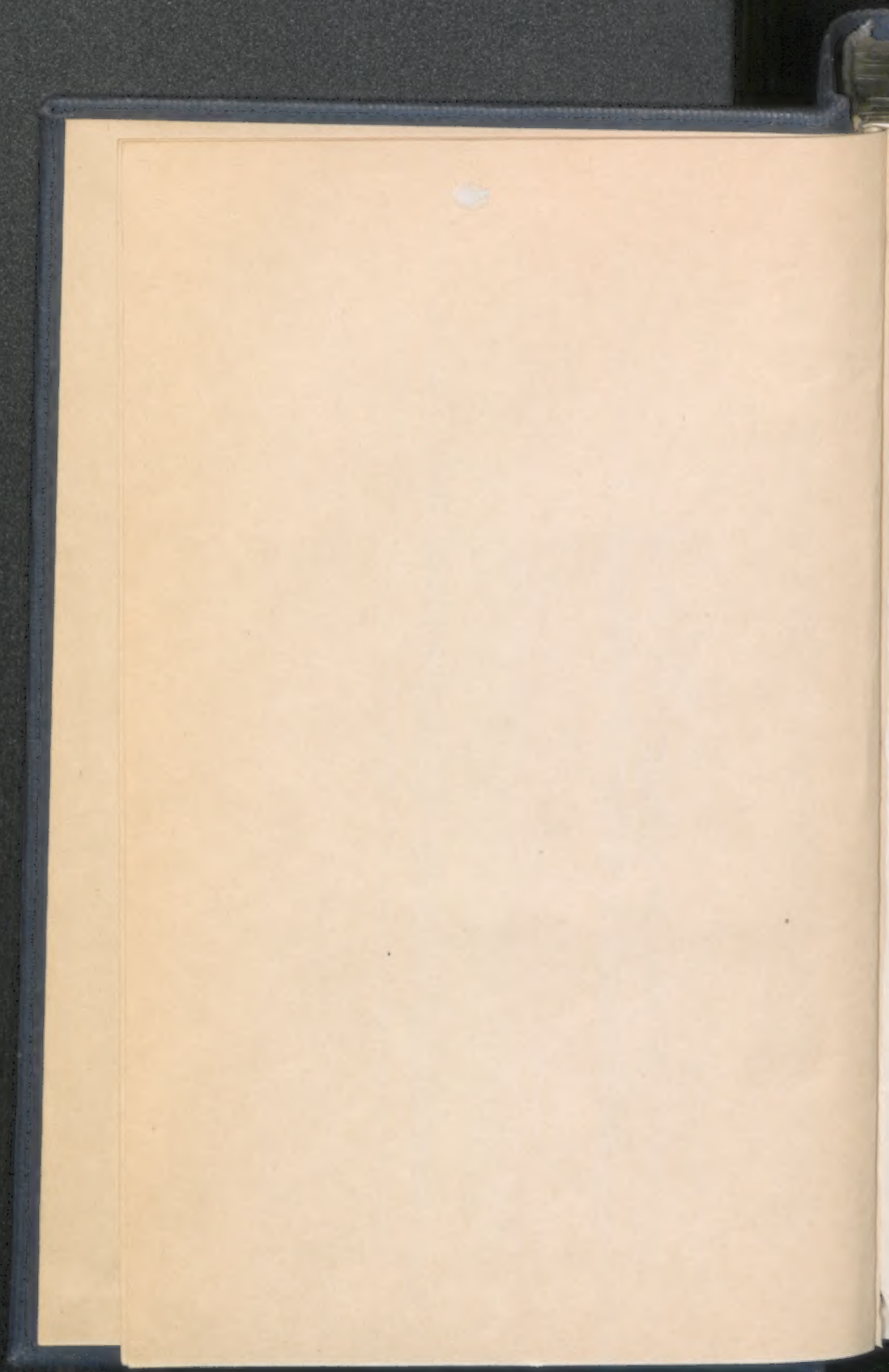


THE  
GEORGE  
WASHINGTON  
UNIVERSITY

CATALOGUE





THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN

---

PRELIMINARY ANNOUNCEMENT

THE SUMMER SESSIONS

1943



WASHINGTON, D. C.

MARCH 1943

## THE SUMMER SESSIONS OF 1943

The University announces an accelerated program of instruction and study for the Summer Sessions of 1943, and offers courses leading to the certificate in the Junior College and to the appropriate degrees in the Columbian College of liberal arts and sciences, the School of Medicine, the Law School, the School of Engineering, the School of Education, and the School of Government. Courses for certification and transfer of credits to other schools and colleges are available under the Division of University Students. The facilities for advanced study and research also are afforded to doctoral students registered under the Graduate Council. Special courses for war training sponsored by the Federal Government are given at the University and are subject to special announcement from time to time, and selected subjects will be offered under the University Division of Extension.

The courses offered under the schools and colleges of the University are a regular part of the curricula leading to the various degrees and are arranged to include the same materials and carry the same credits as regular courses offered in the fall and winter terms of the University program.

## DATES OF SUMMER SESSIONS

### THE PROFESSIONAL SCHOOLS

#### *The School of Medicine*

Three complete terms of regular instruction are offered during the academic year. The next class will be admitted November 22, 1943. Details of this program may be obtained from the Office of the Dean of The School of Medicine.

#### *The Law School*

Two sessions of instruction, together constituting a full term of fifteen weeks, are offered during the summer. The first session begins Monday, June 7, 1943 and ends Saturday, July 31. The second session begins Monday, August 2, and ends Saturday, September 25. Details may be obtained from the Office of the Dean of The Law School.

#### *The School of Engineering*

One full term of instruction, corresponding in length and content to the regular fall and winter terms, is offered during the summer. This term begins Monday, June 7, 1943 and ends Friday, September 17. Details of this program may be obtained from the Office of the Dean of The School of Engineering.

#### *The School of Education*

Professional courses are offered in the evening in two sessions during the summer. The first begins Monday, June 7, 1943 and ends Wednesday,



July 28. The second session begins Thursday, July 29 and ends Friday, September 17. Undergraduate classes meet for double periods three evenings each week. Graduate classes meet only two evenings each week. In addition, a session of six weeks is offered for teachers who are not employed during the summer, beginning Tuesday, July 6 and ending Friday, August 13. Courses are scheduled in the daytime and confined to subjects of an advanced and professional nature. Details may be obtained from the Office of the Dean of The School of Education.

#### *The School of Government*

The dates of the sessions and the schedule of classes follow the same plan as in the liberal arts program.

### THE LIBERAL ARTS AND SCIENCES PROGRAM

A program of courses of particular value to students of the *Junior College* and the *Columbian College* of liberal arts and sciences is offered in two sessions of accelerated work. The first session begins Monday, June 7 and ends Wednesday, July 28; the second session begins Thursday, July 29 and ends Friday, September 17. Classes will normally meet on Mondays through Fridays, and will carry three hours' credit for each session. Students will thus be able to complete one full term of work in each course in seven and one-half weeks, or a full academic year in a six-credit course in fifteen weeks.

In addition, a program of basic or introductory courses is offered in a full summer term of fifteen weeks, usually meeting only three times a week as in the regular fall and winter terms. This program is designed for those students whose schedule of study or employment makes it convenient to attend the University only on Mondays, Wednesdays, and Fridays. Classes will be scheduled both during the day and in the early evening. This full term of normal rate work begins on Monday, June 7 and ends on Friday, September 17.

---

The opening of the fall term has been postponed until October 1, thus affording a vacation period for those who choose the normal rate program of fifteen weeks.

### TUITION CHARGES AND FEES

For each hour of credit carried by courses announced in the Summer Sessions the tuition charge is \$8.00, except that tuition in the School of Medicine and in the Graduate Council is charged on a term basis. Tuition charges in the Division of Extension, and other fees, such as the general University fee and laboratory fees, will be itemized in a complete Summer Sessions announcement which will appear in the early spring of 1943.



## COURSES OF INSTRUCTION

A detailed list and description of all courses offered in the Summer Sessions, including credit-hours and times of meeting, will appear in a University Bulletin to be issued in the early spring. This announcement will also contain information relating to the various schools, colleges, and divisions of the University.

A list of the departments and general subjects to be included in the Summer Sessions program follows:

Accounting	German
Biology	History
Business Administration	Law
Chemistry	Mathematics
Economics	Medicine
Education:	Philosophy
Elementary	Physics
Secondary	Political Science
Engineering:	Psychology
Civil Engineering	Public Speaking
Electrical Engineering	Romance Languages:
Industrial Management	French
Marine Engineering	Portuguese
Mechanical Engineering	Spanish
Naval Architecture	Secretarial Studies
English:	Statistics
Composition	Zoology
American Literature	
English Literature	

Courses in the subjects listed above are open to persons qualified to undertake such study, under the regulations of the Division of University Students and with the approval of the instructor, even though they are not candidates for degrees.

A number of special courses will be offered through the Division of Extension such as Chinese, Japanese, Russian, etc.

---

A complete announcement of the Summer Sessions will be sent to all persons who request a copy from the Office of the Director of Admissions. Those who have asked for Summer Sessions' information prior to the publication of this Preliminary Announcement will be sent the complete bulletin without further request.



THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN

DEPARTMENT OF SECRETARIAL STUDIES

SUMMER SESSIONS 1943



WASHINGTON, D. C.

1943

## THE GEORGE WASHINGTON UNIVERSITY

### DEPARTMENT OF SECRETARIAL STUDIES

In accordance with the wartime policy of The George Washington University, basic courses in secretarial studies offered during the regular academic year are included in the 1943 Summer Sessions.

For the convenience of both full-time and part-time students, classes are scheduled in the daytime and in the evening.

Credit earned during the 1943 Summer Sessions may be applied toward either the two-year vocational curriculum leading to the Junior Certificate in Secretarial Studies or the four-year curriculum leading to the degree of Bachelor of Science in Secretarial Administration.

Students registering for either the two- or the four-year curriculum will be able to take, not only courses in secretarial studies but also required courses from other departments.

#### ADMISSION

Application blanks and information concerning requirements for admission are available at the Office of the Director of Admissions. To secure prompt action, application for admission for the Summer Sessions should be made as early as possible.

#### REGISTRATION

The preregistration period will extend from May 10 through June 5. Registration will be held in the Hall of Government, 710 Twenty-first Street NW., from 11:00 A.M. to 7:00 P.M., Monday, June 7, for the first session; Thursday, July 29, for the second session.

#### FEES

Fees are as follows:

University fee, for each session or any part thereof:

For the student registered for credit.....	\$4
For the Auditor.....	2
Tuition fee, for each credit hour.....	8
Late registration fee.....	5

Laboratory fees are included in the description of the course concerned.



## COURSES OF INSTRUCTION

Dorothy Helene Veon, A.M., *Assistant Professor of Secretarial Studies,*  
*Executive Officer*

John L. Rowe, A.M., *Instructor in Secretarial Studies*

### FIRST SESSION—JUNE 7 TO JULY 28

- I *Elementary Typewriting* (3) Rowe  
Fundamentals of typing; styles of business letters and forms; principles of tabulation. Laboratory fee, \$6. Daily except Sat., 1:00 to 3:00 P.M.
- 11S *Elementary Shorthand* (3) Veon, Rowe  
A functional study of Gregg shorthand correlating dictation and transcription. Minimum speed of 60 words a minute attained. Section A: daily except Sat., 10:10 A.M. to 12:10 P.M.; section B: daily except Sat., 6:10 to 8:10 P.M.
- 15 *Advanced Transcription and Typewriting Problems* (3) Veon  
Dictation and transcription involving the vocabularies used in general business, banking, government, law, medicine, and transportation. Minimum speed of 100 words attained. Advanced office typewriting problems and projects with emphasis on speed and accuracy. Prerequisite: the ability to take dictation at a minimum of 80 words a minute and to transcribe accurately; ability to type 50 words a minute. Laboratory fee, \$3. Daily except Sat., 6:10 to 8:10 P.M.
- 54 *Secretarial Practice* (3) The Staff  
Training in secretarial duties; study of secretarial equipment and supplies. Actual office experience involving the taking of dictation and the transcribing of various materials; composing business letters, reports, and other forms; preparing bills, statements, financial forms, and statistical records; business machines; filing practice. Prerequisite: the ability to take dictation at a minimum of 120 words a minute and to transcribe accurately; a knowledge gained through classroom training or the equivalent in experience of the following: filing and indexing, business mathematics, secretarial bookkeeping, and secretarial practice. Hours to be arranged.

### SECOND SESSION—JULY 29 TO SEPTEMBER 17

- 12S *Intermediate Shorthand* (3) Veon  
Review of shorthand principles; increasing speed and efficiency in shorthand through training in English grammar, syntax, and vocabulary; typewriting problems; and analysis of transcriptions. Minimum speed of 80 words a minute attained. Prerequisite: Secretarial Studies 11 or the equivalent; ability to take dictation at 60 words a minute. Daily except Sat., 6:10 to 8:10 P.M.

Additional courses will be offered if the need arises. Students who need training in intermediate typewriting or shorthand, or in business writing during the first session, or students who need additional courses during the second session of the summer term are advised to consult the Executive Officer of the Department.

## CLOSELY RELATED COURSES IN OTHER DEPARTMENTS

### FIRST SESSION

Business Administration 51, *Principles of Accounting* (3)  
Economics 1, *Introductory Economics* (3)  
English 1 and 2, *Freshman English* (3)  
Psychology 1, *General Psychology* (3)  
Psychology 144, *Public Personnel Psychology* (3)  
Statistics 101, *Economic and Sociological Statistics* (3)

### SECOND SESSION

Business Administration 52, *Principles of Accounting* (3)  
Business Administration 101, *Business Organization and Control* (3)  
Business Administration 102, *Business Management* (3)  
Economics 2, *Introductory Economics* (3)  
English 1 and 2, *Freshman English* (3)  
Psychology 2, *Applied Psychology* (3)  
Psychology 146, *Employee Counseling* (3)  
Public Speaking 1, *Principles of Effective Speaking* (3)  
Statistics 102, *Economics and Sociological Statistics* (3)



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

THE LAW SCHOOL

SUMMER TERM 1943



WASHINGTON, D. C.

1943

## THE LAW SCHOOL SUMMER TERM

### THE FACULTY

William Cabell Van Vleck, A.B., LL.B., S.J.D., *Dean of the Law School,  
Professor of Law*

Hector Galloway Spaulding, B.S., LL.B., S.J.D., *Professor of Law*

Walter Lewis Moll, A.B., LL.B., S.J.D., *Professor of Law*

Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*

Carville Dickinson Benson, A.B., LL.B., S.J.D., *Associate Professor of  
Law*

John Albert McIntire, A.B., LL.B., *Associate Professor of Law*

### CALENDAR

The summer term will be a full University term of fifteen weeks, divided into two sessions of seven and one-half weeks each. Classes in the first session will begin Monday, June 7, and end Wednesday, July 28. Examinations will be held Thursday and Friday, July 29 and 30. Classes for the second session will begin on Monday, August 2, and will end on Wednesday, September 22. Examinations will be held on Thursday and Friday, September 23 and 24.

### THE LAW SCHOOL IN THE NATIONAL EMERGENCY

The summer term is part of the accelerated program of the Law School adopted to help students meet the emergencies caused by the war. Three subjects will be completed during each session, or half term, of seven and one-half weeks. One subject will be carried through both sessions. Students may take work in either or both sessions.

The Dean's Council will endeavor in every way consistent with proper educational standards to approve such special arrangements as may be necessary to meet individual problems arising from the demands made upon students by the national emergency. Students who have such problems are requested to submit them to the Dean of the Law School for the full and immediate consideration of the Dean's Council.



## ACADEMIC AND RESIDENCE CREDIT

The summer term is a regular part of the work of the school. Credit, both academic and residence, is given for subjects completed by qualified students.

Four hours of credit may be earned in each session. Students attending both sessions and taking the full-term course in addition to one four credit course each session may earn ten hours of credit.

## CHANGED ADMISSION REQUIREMENTS

For the duration of the present national emergency students will be admitted to regular standing who present scholastic records showing the satisfactory completion of not less than one-half of the work required for graduation from an approved college.

Students in regular standing in other approved law schools may be admitted as unclassified students for the summer term only.

Qualified students are permitted to begin the study of Law in either session of the summer term.

## REGISTRATION

Students will be registered only when proper credentials have been filed and approved. The registration days will be Monday, June 7 for the first session; Monday, August 2, for the second session. A late-registration fee of \$5 will be charged students registering after June 7 for the first session and after August 2 for the second session.

## FEES

Fees are as follows: University fee for each session, \$4; tuition fee, for each term hour, \$8; late-registration fee, \$5; reinstatement fee, \$5.

Fees for each session are payable in advance at the beginning of the session. No refund of fees can be granted because of withdrawal during a session or because of absence from classes. A student who is compelled to withdraw before the end of a session should notify the Dean of the Law School in writing as promptly as possible.

## HOURS OF INSTRUCTION

Classes are held in the evening from 6:20 to 8:00 P.M.

## COURSES OF INSTRUCTION

(First-year courses, 101-200; second-year courses, 201-300; third-year courses, 301-400.  
Graduate students may take third-year courses not already completed.)

### FIRST SESSION

- |     |   |           |
|-----|---|-----------|
| 111 | <i>Contracts I</i> (4)<br>Williston, Cases on Contracts, 4th ed. Mon., Tues., Wed., and Thurs., 6:20-8:00 P.M.  | Moll      |
| 203 | <i>Agency*</i> (1)<br>Steffan, Cases on Agency, Fri., 6:20-8:00 P.M. (Continued through the second session. Credit will not be given for one session only.) | McIntire  |
| 351 | <i>Domestic Relations*</i> (4)<br>Madden and Compton, Cases on Domestic Relations. Mon., Tues., Wed., and Thurs., 6:20-8:00 P.M.                            | Spaulding |
| 249 | <i>Property III*</i> (2)<br>Kirkwood, Cases on Conveyances, 2d ed. Mon. and Wed., 6:20-8:00 P.M.  | Benson    |
| 253 | <i>Wills*</i> (2)<br>Mechem and Atkinson, Cases on Wills and Administration. Tues. and Thurs., 6:20-8:00 P.M.   | Benson    |

### SECOND SESSION

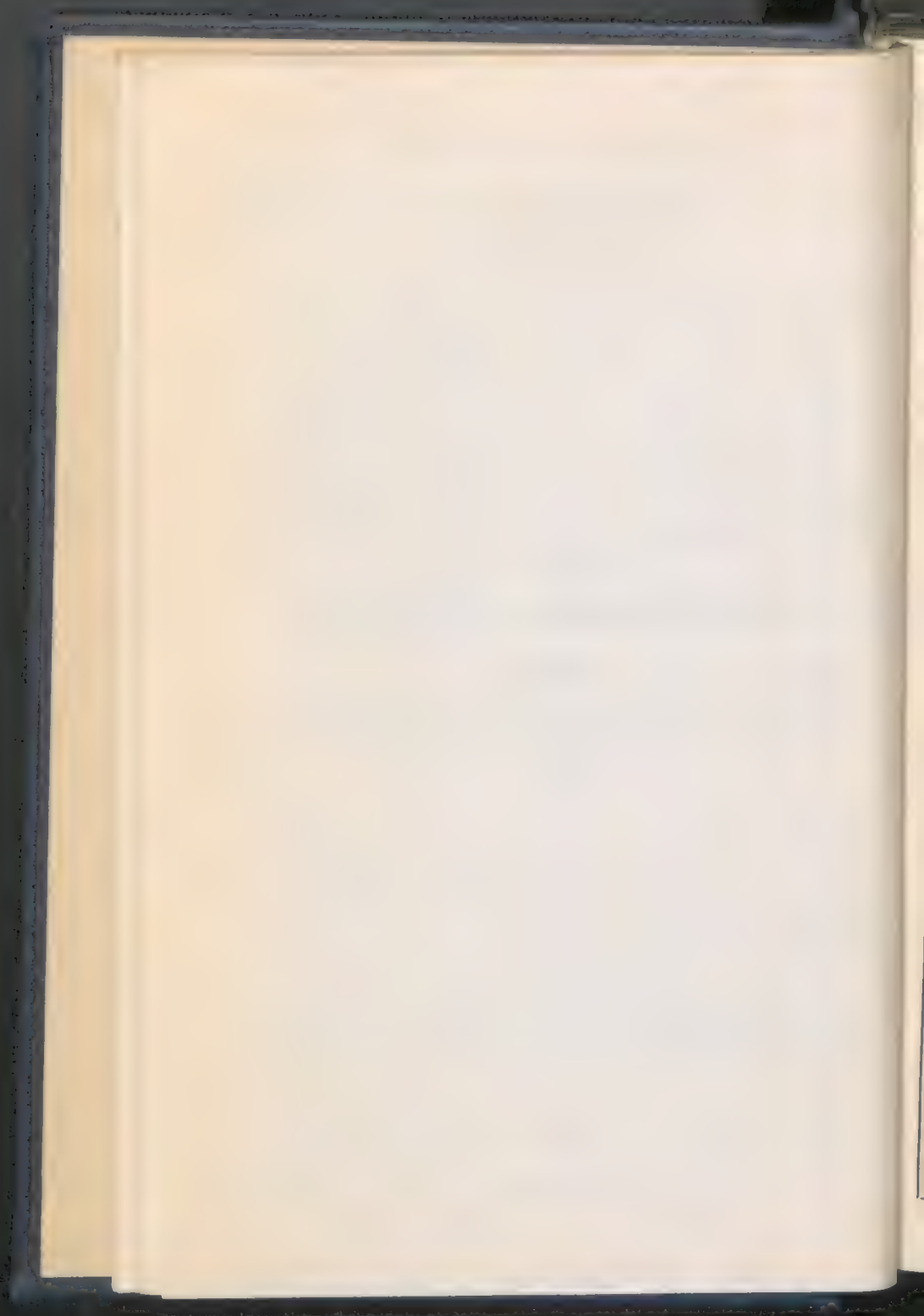
- |     |  |           |
|-----|--|-----------|
| 142 | <i>Torts</i> (4)<br>Bohlen, Cases on Torts, 4th ed., by Harper. Mon., Tues., Wed., and Thurs., 6:20-8:00 P.M.  | Van Vleck |
| 204 | <i>Agency*</i> (1)<br>Steffan, Cases on Agency. Fri., 6:20-8:00 P.M. (Continued from first session. Credit will not be given for one session only.)                            | McIntire  |
| 246 | <i>Negotiable Instruments and Sales</i> (4)<br>Britton, Cases on Bills and Notes, 3d ed.; Williston and McCurdy, Cases on Sales. Mon., Tues., Wed., and Thurs., 6:20-8:00 P.M. | Oppenheim |
| 382 | <i>Trusts*</i> (4)<br>Scott, Cases on Trusts, 3d ed. Mon., Tues., Wed., and Thurs., 6:20-8:00 P.M.   | Moll      |

\* These subjects will not be given during the fall and winter term of 1943-44.



THE SUMMER SESSIONS

1943





THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLII

No. I

---

THE SUMMER SESSIONS

---

WASHINGTON, D. C.

PUBLISHED IN FEBRUARY  
MCMXLIII

BY THE UNIVERSITY

SPEC  
LD  
1907  
A  
V. 42  
1908/44

~~100213~~



## THE SUMMER SESSIONS

### THE UNIVERSITY IN THE NATIONAL EMERGENCY

The George Washington University is responding to the demands of the Government for professionally and technically trained men and women by expanding the educational program of the 1943 summer term into two seven and one-half weeks' sessions. Basic courses of the regular year are now included in the course offerings of the two summer sessions. By taking advantage of this opportunity for intensive summer study, the student may accomplish the equivalent of the work of a full term, and materially shorten the time required for his degree. For those students who wish to take courses in the summer on the same weekly schedule as offered in the regular year, normal term courses are offered three days a week for the fifteen weeks.

The opening date of the Summer Sessions has been set so that a student graduating from high school in June may begin his college work immediately and by attending continuously, complete a four-year college program in two and one-half years. The student will be assisted to plan a program of study, so that, should it become necessary for him to enter the armed forces, the civilian public service, or a war production industry before he is graduated, he will be better prepared to make his contribution to the war effort.

The University is cooperating with the War and Navy departments in their college training programs and is prepared to advise students concerning their preinduction training. Full information regarding these and other training programs may be obtained in the Office of the Junior College.

Recognizing that college women will be called upon to assume additional responsibilities in business, industry, and the public service, a Women's Advisory Council has been formed to advise women on training for war jobs. The university has also established a new curriculum to train administrative assistants. This program of studies which will culminate in a Bachelor of Science degree will be im-

diately useful in preparing women for war services as clerks, secretaries, supervisors, accountants, and junior executives. The details of this program are described in a special bulletin which will be sent upon request.

Because of the vastly increased importance of Latin America in world affairs, the University is offering special courses in Spanish, Portuguese, and Latin American affairs.

The professional schools of Engineering, Law, and Medicine are offering complete programs which are the equivalent of a full term's work. Special catalogues of these schools will be sent upon request.

#### ADDITIONAL COURSES

The University wishes to adjust its course offerings to the changing times. New courses will be offered as the need arises. Students who need training in fields in which courses are not listed are advised to consult with the deans of the colleges in which they are registered.



## CONTENTS

	PAGE
THE UNIVERSITY IN THE NATIONAL EMERGENCY.....	v
CALENDAR OF THE SUMMER SESSIONS.....	viii
THE UNIVERSITY .....	i
The Board of Trustees.....	3
Officers of Administration.....	4
History and Organization.....	5
Academic Status .....	5
Location .....	6
Educational Facilities .....	6
Other Library Facilities in Washington.....	6
Research Facilities in Washington.....	7
THE SUMMER SESSIONS.....	9
Staff of Instruction.....	11
Admission .....	13
Registration .....	13
Fees and Financial Regulations.....	14
Student Life .....	17
University Regulations .....	18
THE COLLEGES, SCHOOLS, AND DIVISIONS.....	19
The Junior College.....	21
Columbian College (the senior college).....	22
The Graduate Council.....	22
The School of Medicine.....	23
The Law School.....	23
The School of Engineering.....	23
The School of Education.....	24
The School of Government.....	25
The Division of University Students.....	27
COURSES OF INSTRUCTION.....	47
SCHEDULE OF COURSES.....	55
INDEX .....	

## CALENDAR OF THE SUMMER SESSIONS 1943

IN ALL COLLEGES, SCHOOLS, AND DIVISIONS EXCEPT THE  
SCHOOLS OF MEDICINE\* AND LAW

Date	Day	Occasion
May 10-June 5 .....		Preregistration period for the Summer Sessions
June 7 .....	Monday .....	Registration for the first session First session classes begin
July 6 .....	Tuesday .....	Registration for special six weeks session in the School of Education
July 28 .....	Wednesday .....	First session ends†
July 29 .....	Thursday .....	Registration for second session Second session classes begin
Sept. 6 .....	Monday .....	Labor Day. Holiday
Sept. 10-30 .....		Preregistration period for the fall term
Sept. 17 .....	Friday .....	Second session ends
Oct. 1 and 2 ..	Friday and Saturday..	Registration for the fall term of the academic year 1943-44

### IN THE LAW SCHOOL

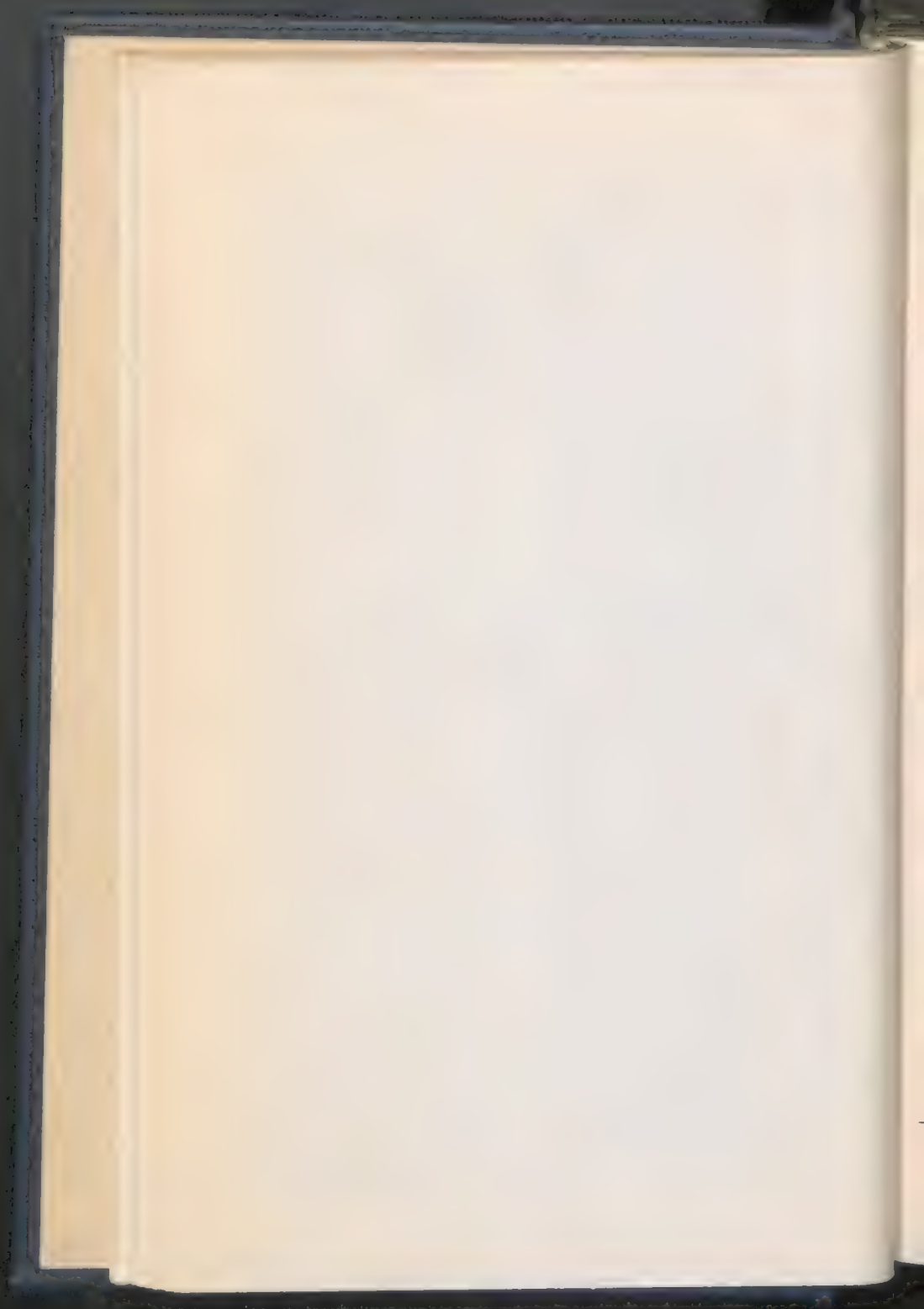
Date	Day	Occasion
June 7 .....	Monday .....	First session begins
July 28 .....	Wednesday .....	First session ends
July 29 and 30	Thursday and Friday..	First session examinations
Aug. 2 .....	Monday .....	Second session begins
Sept. 6 .....	Monday .....	Labor Day. Holiday
Sept. 22 .....	Wednesday .....	Second session ends
Sept. 23 and 24	Thursday and Friday..	Second session examinations
Oct. 1 and 2 ..	Friday and Saturday..	Registration for the fall term of the academic year 1943-44

\* For the Medical School calendar see the catalogue of the School of Medicine.

† Courses in engineering and certain courses in the arts and sciences extend over one unbroken term of fifteen weeks.



THE UNIVERSITY



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President of the University ex officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
Arthur Peter, LL.B., *Vice Chairman*  
Harry Cassell Davis, A.M., L.H.D., *Secretary*  
Henry Parsons Erwin, A.B., *Assistant Secretary*

---

Avery DeLano Andrews, B.S., LL.B.  
Clarence Aiken Aspinwall  
Charles Silas Baker, A.M., LL.B.  
\*Harvey Cleveland Bickel, LL.B.  
John St. Clair Brookes, Jr., A.M., LL.B.  
\*Bennett Champ Clark, A.B., LL.B.  
John Henry Cowles, LL.D.  
Mrs. Joshua Evans, Jr., A.B., Ed.D.  
\*George Edgar Fleming, LL.M.  
\*Robert Elliott Freer, LL.M., A.B.  
Charles William Gerstenberg, Ph.B., LL.B., J.D.  
Ulysses S. Grant, 3d, B.S., Graduate  
United States Engineers' School  
Gilbert Grosvenor, A.M., LL.D., Litt.D.  
John Edgar Hoover, LL.M., LL.D.  
Alfred Henry Lawson, LL.B.  
Theodore Williams Noyes, A.M., LL.M., LL.D.  
Luther Henry Reichelderfer, M.D., LL.D.  
Mrs. Henry Alvah Strong, LL.D.  
Merle Thorpe, A.B.  
Walter Rupert Tuckerman, A.B., LL.B.  
Chester Wells, B.S., Graduate  
United States Naval War College  
Lloyd Bennett Wilson

\* Nominated by the Alumni.



## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Harold Griffith Sutton, M.S., *Director of Admissions*  
Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*  
John Russell Mason, B.S. in L.S., A.M., *Librarian*  
Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
Henry William Herzog, B.S., *Comptroller*  
Allen Howard Connolly, B.S., *Business Manager*  
Benjamin Franklin Dean, Jr., M.S., M.D., *Acting Director of Health Administration*  
Vinnie Giffen Barrows, A.M., *Director of Personnel Guidance*  
Lester Allan Smith, A.M., *Alumni Secretary*

### THE COLLEGES, SCHOOLS, AND DIVISIONS

William Crane Johnstone, Jr., Ph.D., *Dean of the Junior College*  
Christopher Browne Garnett, Jr., Ph.D., Litt.D., *Assistant Dean of Columbian College*  
Robert Whitney Bolwell, Ph.D., *Chairman of the Graduate Council*  
Walter Andrew Bloedorn, A.M., M.D., *Dean of the School of Medicine*  
William Cabell Van Vleck, A.B., LL.B., S.J.D., *Dean of the Law School*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of Engineering*  
\_\_\_\_\_, *Dean of the School of Pharmacy*  
James Harold Fox, A.M., Ed.D., *Dean of the School of Education*  
Warren Reed West, Ph.D., *Assistant Dean of the School of Government*  
Elmer Louis Kayser, Ph.D., *Dean of University Students; University Marshal*  
Sidney Bartlett Hall, A.M., Ed.D., *Director of the Division of Extension*  
Donnell Brooks Young, Ph.D., *Assistant Dean in the Junior College*  
Katharine Rogers Adams, Ph.D., *Assistant Dean in the Junior College*  
Alan Thomas Deibert, A.M., *Assistant Dean in the Junior College; Adviser to Students from Foreign Countries*  
George Howland Cox, *Director of the Inter-American Center*  
John Rust Busick, A.B., *Director of Athletics*  
Ruth Harriet Atwell, A.M., *Director of Physical Education for Women*

# THE UNIVERSITY

## HISTORY AND ORGANIZATION

The idea of a university in the Capital of the Nation was sponsored by George Washington, who during his public life urged the establishment of such an institution and who in his will left fifty shares of stock in the Potomac (Canal) Company for the endowment of a university to be established in the District of Columbia "to which the youth of fortune and talents from all parts thereof might be sent for the completion of their Education in all the branches of polite literature;—in arts and Sciences.—in acquiring knowledge in the principles of Politics & good Government".

The George Washington University is the successor of Columbian College in the District of Columbia, which was chartered by an act of Congress of February 9, 1821. In 1873 the name was changed to "Columbian University" and in 1904 to "The George Washington University".

The University as it is now organized consists of the Junior College, comprising the work of the freshman and sophomore years; Columbian College, the senior college of liberal arts, which offers work leading to the Bachelor's and Master's degrees; the Graduate Council, which offers work leading to the degree of Doctor of Philosophy; the professional schools, which include Medicine, Law, Engineering, Pharmacy, Education, and Government; the Division of University Students, which leads to no degree but makes the work of the University accessible to the mature student; the Division of Extension; and the Inter-American Center.

## ACADEMIC STATUS

The George Washington University is on the approved list of the Association of American Universities, the standard accrediting body for the United States. This fact not only assures to students the academic standards of this accrediting body, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women.

The Law School is a charter member of the Association of

American Law Schools and is approved by the Council of Legal Education of the American Bar Association. The School of Medicine is a member of the Association of American Medical Colleges, and is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association. The School of Pharmacy is accredited by the American Council on Pharmaceutical Education and is a member of the American Association of Colleges of Pharmacy. The School of Engineering is on the accredited list of the Engineers' Council for Professional Development.

#### LOCATION

The George Washington University is in downtown Washington, four blocks west of the White House and east of the Potomac River with its extensive parkway. Within a few blocks are the buildings housing the offices of many of the departments of the Government, including the Department of State, the Department of the Treasury, the Department of War, the Department of Justice, the Department of the Navy, the Department of the Interior, the Department of Agriculture, the Department of Commerce, and the Department of Labor. The Corcoran Gallery of Art, the Pan American Union Building, and the National Academy of Sciences are also near by; and the Capitol and the Library of Congress are readily accessible.

#### EDUCATIONAL FACILITIES

Buildings, grounds, and equipment of the University are valued at over \$6,000,000. The buildings of the colleges, schools, and divisions offering Summer Sessions work are in the vicinity of Twenty-first and G Streets NW., except for the School of Medicine which is at 1335 H Street NW.

*The University Library.*—The University Library contains more than 150,000 volumes, and with the exception of the law and medical collections is housed in the modern six-story Library building.

Regulations governing the use of the library: the circulation of books, and the use of reserve books and periodicals are available for distribution at the service desks of the Library.

#### OTHER LIBRARY FACILITIES IN WASHINGTON

The student has access also to the Library of Congress; the Public Library of the District of Columbia and its branches; the



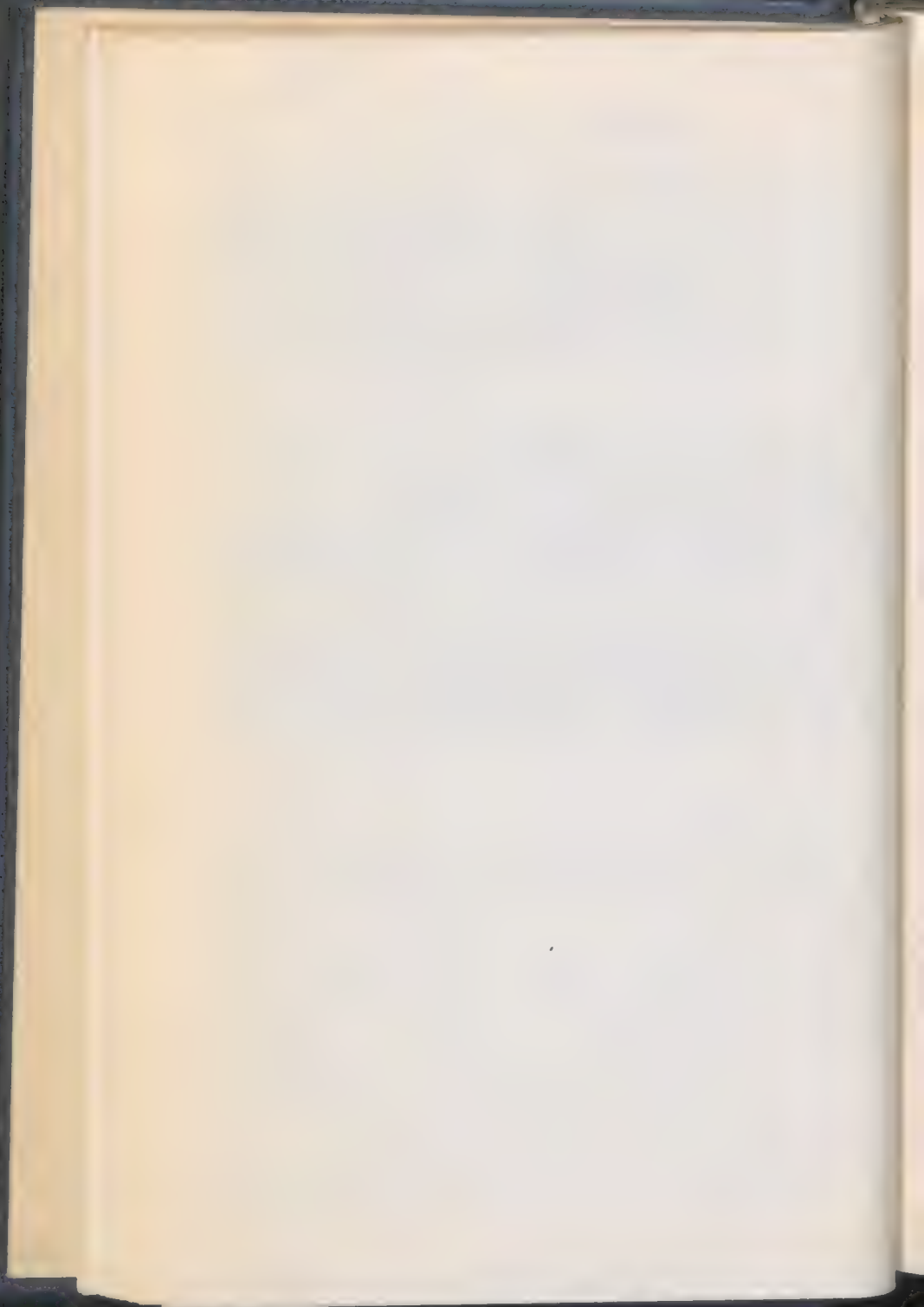
Library of the Carnegie Endowment for International Peace; the Library of the Pan American Union; the Library of the Bureau of Railway Economics; the Library of the United States Department of Agriculture, with its scientific departmental collections; the Library of the United States Office of Education; the Army Medical Library; the Library of the Smithsonian Institution; and many other great special collections of the government departments.

#### RESEARCH FACILITIES OF WASHINGTON

The arrangement of the summer schedule of classes permits the full-time student to avail himself of the opportunity to study, at first hand, the working of the Federal Government and so to form a background for intelligent and useful citizenship.

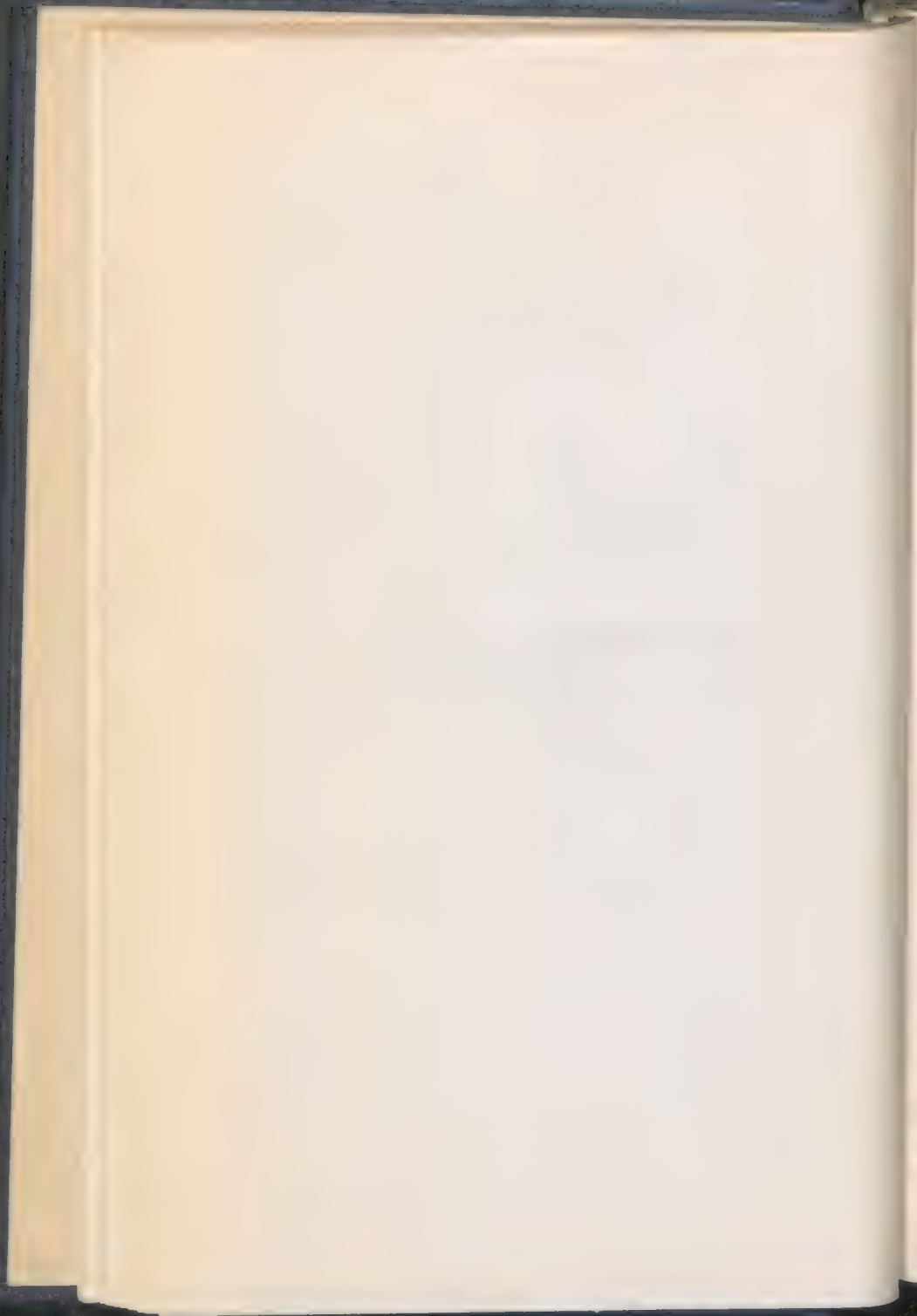
In the departmental libraries of the Federal Government are a multitude of reports made by eminent specialists in all fields of science on the results of study and research in the bureaus, experimental stations, laboratories, museums, and observatories of the Nation.

In addition to the governmental collection the student has access to the research facilities of such scientific and educational groups, whose headquarters are situated in Washington, as the Carnegie Institution, the American Council on Education, the National Academy of Science, the National Research Council, the National Education Association, and the National Geographic Society.



THE SUMMER SESSIONS  
1943





S  
I  
A  
I  
T  
M  
E  
F  
V  
E  
R  
A  
P

## STAFF OF INSTRUCTION IN THE SUMMER SESSIONS

- Katharine Rogers Adams, Ph.D., *Lecturer in English*  
 Antonio Alonso, A.M., *Assistant Professor of Spanish*  
 Courtland Darke Baker, Ph.D., *Associate Professor of English*  
 Carville Dickenson Benson, A.B., LL.B., S.J.D., *Associate Professor of Law*  
 Robert Whitney Bolwell, Ph.D., *Professor of American Literature*  
 Paul William Bowman, Ph.D., *Associate Professor of Biology*  
 Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
 Arthur Edward Burns, Ph.D., *Adjunct Professor of Economics*  
 Georgette Dupuy Caskie, L.-ès-L., *Instructor in Romance Languages*  
 Walter Lynn Cheney, Ph.D., *Professor of Physics*  
 Charles William Cole, Ph.D., *Assistant Professor of English*  
 James Christopher Corliss, A.M., *Adjunct Professor of Inter-American Economics*  
 Ruth Emma Coyner, Ph.D., *Associate Professor of Education*  
 Martin Steele Day, A.B., *Instructor in English Composition*  
 Raul d'Eça, Ph.D., *Associate in Portuguese*  
 Alan Thomas Deibert, A.M., *Associate Professor of Romance Languages*  
 Isaac Feldman, B.S., *Instructor in Chemistry*  
 John Porter Foley, Jr., Ph.D., *Assistant Professor of Psychology*  
 James Harold Fox, A.M., Ed.D., *Professor of Education*  
 George Antony Gamow, Physics D., *Professor of Theoretical Physics*  
 Christopher Browne Garnett, Jr., Ph.D., Litt.D., *Associate Professor of Philosophy*  
 Sidney Bartlett Hall, A.M., Ed.D., LL.D., *Professor of Education*  
 Ira Bowers Hansen, Ph.D., *Associate Professor of Zoology*  
 Florence Everett Hooper, Ph.D., *Assistant Professor of Chemistry*  
 Averett Howard, A.M., *Instructor in English*  
 Henry Furness Hubbard, Ph.D., *Adjunct Professor of Psychology*  
 Helma Hunt, Ph.D., M.D., *Associate Professor of Psychology*  
 Maurice Harold Irvine, Ph.D., *Instructor in English*  
 Burnice Herman Jarman, A.M., Ed.D., *Assistant Professor of Education*  
 Francis Edgar Johnston, Ph.D., *Professor of Mathematics*  
 William Crane Johnstone, Jr., Ph.D., *Professor of Political Science*  
 Imer Louis Kayser, Ph.D., *Professor of European History*  
 Ralph Dale Kennedy, Ph.D., *Professor of Accounting and Business Administration*  
 Albert Santee Kerr, A.M., *Instructor in English*  
 Peyton Armstrong Kerr, Ph.D., *Associate in Economics*

- George Martin Koehl, A.M., *Associate in Physics*  
 Mary Frances Langs, B.S., *Instructor in Physics*  
 Wolfram Karl Legner, Ph.D., *Assistant Professor of German*  
 Colin Mackenzie Mackall, Ph.D., *Professor of Chemistry*  
 John Albert McIntire, A.B., LL.B., *Associate Professor of Law*  
 Florence Marie Mears, Ph.D., *Associate Professor of Mathematics*  
 Walter Lewis Moll, A.B., LL.B., S.J.D., *Professor of Law*  
 Cecil R. Morales, A.M., *Associate in Spanish*  
 Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*  
 Richard Norman Owens, Ph.D., C.P.A., *Professor of Accounting and Business Administration*  
 James Daniel Powell, Ph.D., *Associate in Spanish*  
 Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
 Lowell Ragatz, Ph.D., *Professor of European History*  
 Gretchen Louisa Rogers, Ph.D., *Assistant Professor of German*  
 Ernest Sewall Shepard, A.M., *Assistant Professor of English*  
 Audley Lawrence Smith, Ph.D., *Associate Professor of English*  
 Hector Galloway Spaulding, B.S., LL.B., S.J.D., *Professor of Law*  
 James Henry Taylor, Ph.D., *Professor of Mathematics*  
 John Albert Tillema, Ph.D., LL.M., S.J.D., *Associate Professor of Political Science*  
 Fred Salisbury Tupper, Ph.D., *Assistant Professor of English*  
 Maurice Hart Van Horn, Ph.D., *Assistant Professor of Chemistry*  
 William Cabell Van Vleck, A.B., LL.B., S.J.D., *Professor of Law*  
 Rae Potter Vaughn, A.M., *Associate in Romance Languages*  
 Alberto Vázquez, Ph.D., *Associate in Spanish*  
 Dorothy Helene Veon, A.M., *Assistant Professor of Secretarial Studies*  
 Donald Stevenson Watson, Ph.D., *Assistant Professor of Economics*  
 Frank Mark Weida, Ph.D., *Professor of Statistics*  
 Warren Reed West, Ph.D., *Professor of Political Science*  
 Alva Curtis Wilgus, Ph.D., *Professor of Hispanic American History*  
 Earl Larkin Williams, A.M., *Associate in Mathematics*  
 Samuel Nathaniel Wrenn, Ph.D., *Associate Professor of Chemistry*  
 Willard Hayes Yeager, A.M., *Depew Professor of Public Speaking*  
 John Martin Yoklavich, A.M., *Instructor in English*  
 Donnell Brooks Young, Ph.D., *Professor of Zoology*



## THE SUMMER SESSIONS

### ADMISSION

A student desiring admission must obtain from the Office of the Director of Admissions an application blank which he must fill out completely and return to the Office of the Director of Admissions.

Entrance requirements are stated in this bulletin under the various colleges, schools, and divisions. Further details may be obtained from the Director of Admissions.

To insure prompt action, applications for the Summer Sessions should be filed as early as possible.

### METHODS OF ADMISSION

#### FOR THE STUDENT SEEKING A DEGREE

An applicant from a secondary school must send the high school record form furnished by the University to his high school principal, with the request that the principal fill out the form and mail it direct to the Office of the Director of Admissions.

An applicant who has previously attended an institution of higher learning should request the registrar of that institution to mail directly to the Office of the Director of Admissions a transcript of his record. If he has attended more than one such institution he must request the registrar of each institution to send to the Office of the Director of Admissions a transcript of his record, even though credits were not earned, together with an honorable dismissal.

#### FOR THE STUDENT NOT SEEKING A DEGREE

The student will be admitted to those courses for which he has adequate preparation and the approval of the instructor.

The student in this group will register in the Division of University Students.

### REGISTRATION

Before a student may be admitted to registration he must have satisfied the Office of Admissions that he is qualified for entrance to the University.

A student previously matriculated in the University but not in

attendance during the term preceding this registration must file an application for readmission in advance of registration.

#### TIME AND PLACE OF REGISTRATION

For the convenience of students, preregistration is provided. Beginning May 10 students may obtain registration forms at the Office of the Registrar.

Registration, except in the Law School, will be conducted in the Hall of Government, 710 Twenty-first Street NW., from 11:00 A.M. to 7:00 P.M., Monday, June 7, for the first session; Thursday, July 29, for the second session.

Registration in the Law School will be conducted in Stockton Hall from 11:00 A.M. to 7:00 P.M., Monday, June 7, for the first session; Monday, August 2, for the second session.

#### LATE REGISTRATION

A fee of \$5 will be charged for all registrations after the stated registration day. Registration for credit closes one week after the registration day.

#### CHANGE IN REGISTRATION

Change in registration may be made only with the permission of the adviser or major professor and the dean or director of the college, school, or division concerned.

### FEES AND FINANCIAL REGULATIONS

By authorization of the Board of Trustees, the following fees have been adopted, effective at the beginning of the Summer Sessions of 1943.

#### UNIVERSITY FEE

For each session or any part thereof.....	
For the student registered for credit.....	\$4
For the auditor†.....	2.00

#### TUITION FEES

For each credit hour.....	8.
---------------------------	----

\* Students registered for only those courses which extend over a single period of fifteen weeks must pay a University fee of \$4.

† Payment of this fee does not entitle auditors to the general privileges to which payment of the preceding fee entitles resident students.

### ADDITIONAL FEES AND DEPOSITS

Additional fees and deposits, such as laboratory and material fees and breakage deposits, are charged in certain courses as indicated in the course descriptions. Such fees are due with the tuition fee for the course. Breakage of apparatus is charged against the individual student, and the amount of breakage is paid in excess of a fund breakage will be credited to the student's account at the end of the course.

### SPECIAL FEES

Late-registration fee, for failure to register within the designated period	5.00
Service fee, for late payment of tuition (see "Payment of Fees").....	1.00
Reinstatement fee, for reinstatement after suspension for delinquency in fees .....	5.00
For examinations to qualify for advanced courses, and for all special examinations, for each subject .....	5.00

### UNIVERSITY FEE

Payment of the University Fee covers all expenses incident to registration and, in addition, secures to each student in the Summer Sessions the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the use of the University library facilities, except as otherwise designated; (3) summer issues of the student newspaper; (4) medical and hospital services described below. These privileges, with the exception of the issuance of transcripts, cease when the student withdraws or is dismissed from the University.

*Medical and Hospital Services.*—These services include: (1) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examinations; (2) hospitalization, including board, medicine, and nursing in the University Hospital for not more than two weeks during a school year—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, two weeks) is also to be determined by the Director of Health Administration.

The student is allowed, if he so desires, to engage physicians and nurses of his own choice, but when he does so he will be responsible for the fees charged.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of the University registration fee.



### PAYMENT OF FEES

All fees are payable at the Office of the Cashier, 725 Twenty-first Street NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each session are due in advance at the time of registration.

In exceptional cases, subject to the approval of the Comptroller, the student may sign a contract for the fees for courses which extend throughout one unbroken fifteen-week term, permitting three payments as follows: one-third plus the University fee and deposits at the time of registration, one-third on July 12, and one-third on August 16. The student whose fees are paid between July 13 and July 16, and between August 17 and August 20 is charged a service fee of \$1.00. A student who fails to make these payments by July 16 and August 20 will be suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5. A suspended student may not be reinstated for the session after one week from the date of suspension. Applications for reinstatement are to be made to the dean of the college or school or the director of the division in which the student is registered.

An auditor pays a University fee of \$2.00 a session and all other fees chargeable to the student registered for credit except the late-registration fee.

### WITHDRAWALS AND REFUNDS

Registrations, except for courses which extend throughout one unbroken term of fifteen weeks, are for the session, and no refunds or rebates are allowed, unless the registration is in advance and the course is dropped before the day of registration for the session involved.

If notice of withdrawal or change in schedule involving courses which extend over an unbroken term of fifteen weeks is received by the dean of the college or school or the director of the division concerned on or before July 9, the second payment will be cancelled or adjusted. If notice of withdrawal or change of schedule is received on or before August 13, the third payment will be cancelled or adjusted. Notice to an instructor is not acceptable notice.

In no case will the University fee or any part of the initial payment of tuition be refunded because of nonattendance upon classes.

Payments apply only to the session or term for which registration charges are incurred and in no case will these payments be credited to another session or term.

Any student in chemistry who fails to check out of the laboratory on or before the date set by the instructor, unless excused by the instructor, shall forfeit the balance of his deposit. A student dropping a course before the end of the session or term must check out of the laboratory at once.

No permission to withdraw and no certificate to work done will be given a student who has not a clear financial record.

As the fiscal year of the University ends on August 31, no requests for refunds can receive consideration after that date.

## STUDENT LIFE

### SOCIAL AND RECREATIONAL PROGRAM OF THE UNIVERSITY

Provision is made for the social and recreational side of student life during the Summer Sessions. The Annual Summer Sessions Party opens the season and is followed by the Starlight Dances each Friday evening on the Lisner Terrace. Teas are arranged so that new students will have a chance to become acquainted with their fellow students.

The city of Washington affords a variety of recreational opportunities. Wooded trails for hiking, riding, and picnicking wind through Rock Creek Park.

The National Symphony Orchestra presents a series of weekly concerts at the nearby Potomac Watergate.

### LIVING ACCOMMODATIONS

Application for room reservations should be made well in advance. Forms for application, together with detailed information may be obtained from the Director of Personnel Guidance. The prices stated below are subject to change without notice.

**Women Students.**—The Hattie M. Strong Residence Hall: single rooms with breakfast and dinner are \$52.50 a month; double rooms with the same service are \$45.50 a month a person. Staughton Residence Hall: single rooms are \$25 a month; double rooms are \$18 a month a person.

**Men Students.**—Limited dormitory facilities are provided for men. Single rooms with breakfast and dinner are \$47.50 a month. Double rooms with the same service are \$42.50 a month a person. The men's fraternities have houses which provide living accommodations for their members.

## UNIVERSITY REGULATIONS

*Academic Credit.*—The Summer Sessions are an integral part of the University. Academic credit for completed work will be given toward the appropriate degrees in the various colleges and schools of the University in accordance with their separate regulations and requirements.

*Residence.*—Summer Sessions work may be counted in residence but the candidate for a degree must satisfy the residence requirements of the school or college concerned as stated in the general catalogue.

*Amount of Work.*—No full-time student may take more than nine credit hours of work during either session; no employed student, more than six hours. By carrying work in both sessions, a full-time student may earn as much as eighteen credit hours; an employed student, twelve hours.

Any exception to these general regulations must be approved by the dean or director of the college, school, or division concerned.

---

The right is reserved to drop any student whenever, in the interest of the student or the University, the Faculty deems it advisable to do so.

The University is not responsible for the loss, in any University building, of personal property belonging to a student.

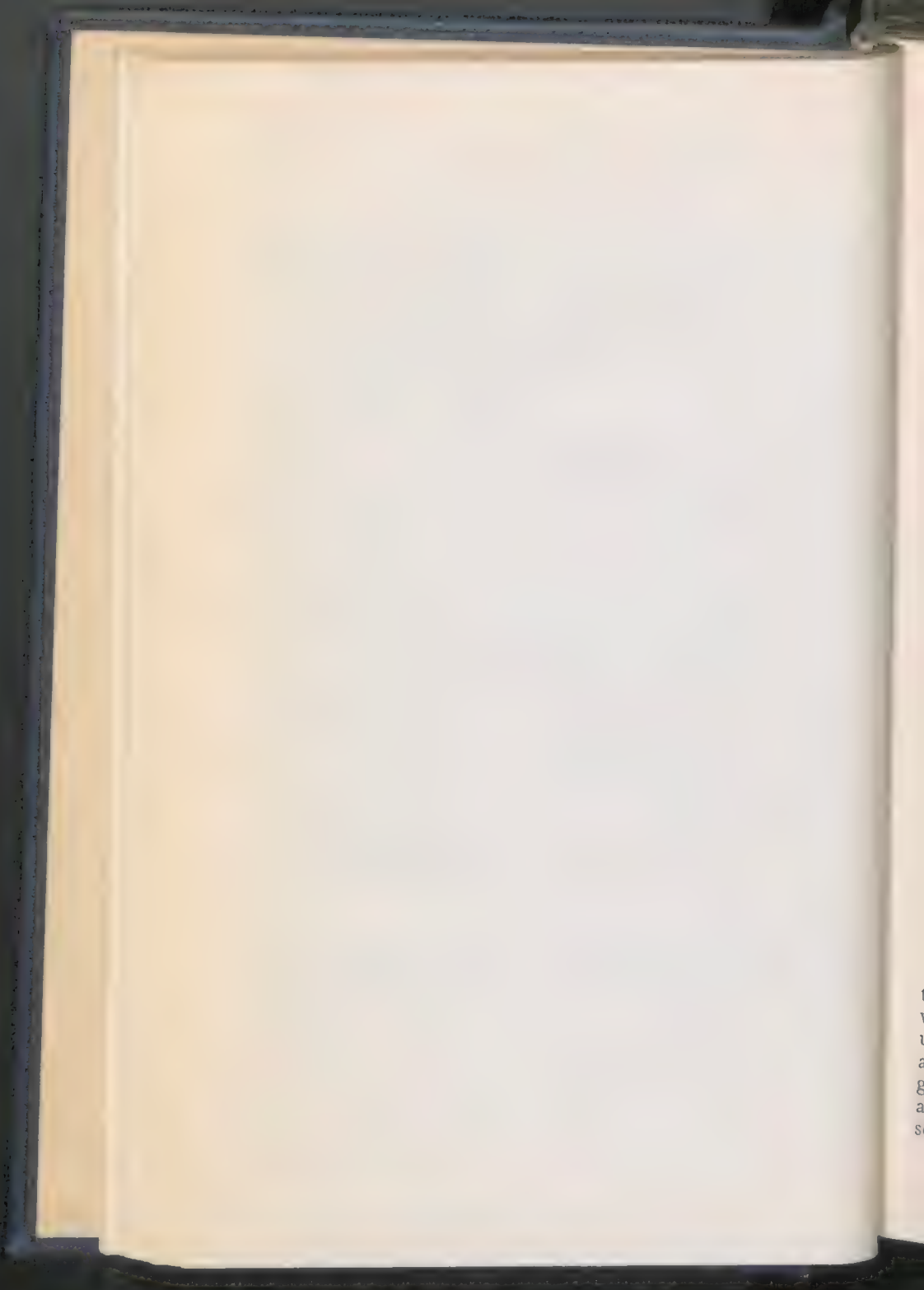
The University and its various colleges, schools, and divisions reserve the right to modify or change the requirements, rules, and fees of the University. Such regulations shall go into force whenever the proper authorities may determine and shall apply to every student of the University.

---

Detailed information concerning admission; scholarship requirements of the individual colleges, schools, and divisions; and requirements for degrees may be obtained from the general catalogue, which is available on request at the Office of the Director of Admissions.



THE COLLEGES, SCHOOLS, AND DIVISIONS



## THE COLLEGES, SCHOOLS, AND DIVISIONS

Information concerning specific requirements for certificates and degrees is omitted from this bulletin. For such information, the student is referred to the general catalogue.

### THE JUNIOR COLLEGE

The Junior College includes the first two years of college work. Its curricula are intended to continue the studies of a general cultural nature begun in secondary school, and to lay a foundation for the more specialized work which is to follow.

The Junior College also provides the preprofessional work required for admission to the schools of Medicine, Law, Pharmacy, Education, and Government.

In addition it provides a two-year terminal curriculum in Secretarial Studies and a two-year terminal curriculum in Accounting for students who wish strictly vocational training in these subjects.

### THE CERTIFICATE

The Junior College offers work leading to the Junior Certificate.

### ENTRANCE REQUIREMENTS

An acceptable certificate of graduation from an accredited secondary school is required. The acceptability of the certificate depends upon the student's character and the quality of his work.

### COURSES OF INSTRUCTION

A Junior College student may not take second-group courses (courses numbered 101-200) without the written permission of the instructor and of the Dean of the Junior College. A student will not be permitted to postpone a first-group course, required under the curriculum for which he is registered, in order to take second-group course for elective credit. The principle that first-group courses must be taken in the Junior College years, and advanced courses in Columbian College and the professional schools, will be rigidly adhered to in approving student programs.



## COLUMBIAN COLLEGE

Columbian College, the senior college of liberal arts and sciences, comprises the work of the junior and senior years and the Master of Arts and Master of Science disciplines.

### THE DEGREES

Columbian College offers work leading to the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, and Master of Science.

In cooperation with the School of Medicine, Columbian College offers work leading to the combined degrees of Bachelor of Arts and Doctor of Medicine.

In cooperation with the Law School, Columbian College offers work leading to the combined degrees of Bachelor of Arts and Bachelor of Laws.

### ENTRANCE REQUIREMENTS

*For the Bachelor's Degrees.*—A Junior Certificate based on the appropriate curriculum in the Junior College, or the equivalent, is required. Scholarship requirements may be somewhat higher than those for graduation from the Junior College.

*For the Master's Degrees.*—An approved Bachelor's degree from an accredited institution and a transcript of studies previously pursued, showing a superior quality of work in the major field, are required.

## THE GRADUATE COUNCIL

The Graduate Council offers work leading only to the degree of Doctor of Philosophy. Because the basis for work under the Graduate Council is primarily creative research, regular study in specific courses is considered quite incidental and is therefore not emphasized in connection with the curricula of the Summer Sessions. A student wishing to work under the disciplines of the Graduate Council will consult the Chairman of the Graduate Council for information concerning credentials and candidacy.

## THE SCHOOL OF MEDICINE

The George Washington University School of Medicine, recognizing the urgent need for medical services during the war period, has reorganized its course to permit the completion of the cur-

tomary four academic years in three calendar years. Each academic year will be composed of two terms totaling thirty-six weeks. A new class will be admitted every other term. The next class will enter in November 1943. (Special bulletin is available.)

### THE LAW SCHOOL

The Law School conducts an accelerated program to enable students better to meet national defense needs. The work is organized into two sessions of seven and one-half weeks each, constituting a full term equal in length to the fall or winter term of the academic year. Four-credit subjects are completed within a session with final credit granted upon passing the examination. One two-credit course will be conducted one night a week during the full fifteen-week term.

The Dean's Council will endeavor in every way consistent with proper educational standards to approve such special arrangements as may be necessary to meet the individual problems arising from the demands made upon students by the National Emergency. Students who have such problems are requested to submit them to the Dean of the Law School for the full and immediate consideration of the Dean's Council.

For specific information concerning the Law School, see the catalogue of the Law School.

### THE SCHOOL OF ENGINEERING

The School of Engineering has accelerated its program by the addition of a full third term of fifteen weeks. This summer term, equivalent to one term of the regular academic year, makes it possible for students to complete the four-year course in two and one-half years of continuous work.

A complete schedule of courses will be offered in work leading to the degrees of Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering.

For information concerning the admission requirements, regular and special course offerings, degrees, etc., see the special bulletin of the School of Engineering.

### THE SCHOOL OF EDUCATION

The School of Education prepares teachers, supervisors, and administrators for educational service and offers opportunities to teachers of experience to extend their education. The schedule

of courses is arranged to meet the needs of employed students as well as those able to devote full time to their studies. It offers both graduate and undergraduate work.

#### THE DEGREES

The School of Education offers work leading to the following degrees: Bachelor of Arts in Education, Bachelor of Science in Home Economics, Bachelor of Science in Physical Education, Master of Arts in Education, and Doctor of Education.

#### ENTRANCE REQUIREMENTS

*For the Bachelor's Degree.*—The satisfactory completion of two years of approved college work, or graduation from an approved two-year normal school, or the equivalent, is required.

*For the Master's Degree.*—A Bachelor's degree from an accredited college, or the equivalent, and the approval of the Committee on Admissions and Advanced Standing are required.

*For the Doctor's Degree.*—A Master's degree from an accredited college, or the equivalent, and the approval of the Faculty of the School of Education are required.

### THE SCHOOL OF GOVERNMENT

#### THE DEGREES

The School of Government offers work leading to the following degrees: Bachelor of Arts in Government with a major in Public Affairs, Foreign Service, Foreign Commerce, Public Administration, Business Administration, Public Finance, Public Accounting, or Business and Government Statistics; and Master of Arts in Government with a major in the above fields and also in Public Personnel Administration.

#### ENTRANCE REQUIREMENTS

*For the Bachelor's Degree.*—The satisfactory completion of two years of approved college work, or the equivalent, is required.

*For the Master's Degree.*—An approved Bachelor's degree based on the proper training for the field selected by the student for graduate study.



## THE DIVISION OF UNIVERSITY STUDENTS

The Division of University Students makes the work of the University, in its several colleges and schools, accessible to the mature student. A student registered in this Division is designated a "University student", as distinguished from the regularly matriculated undergraduate or graduate student who is a candidate for a degree.

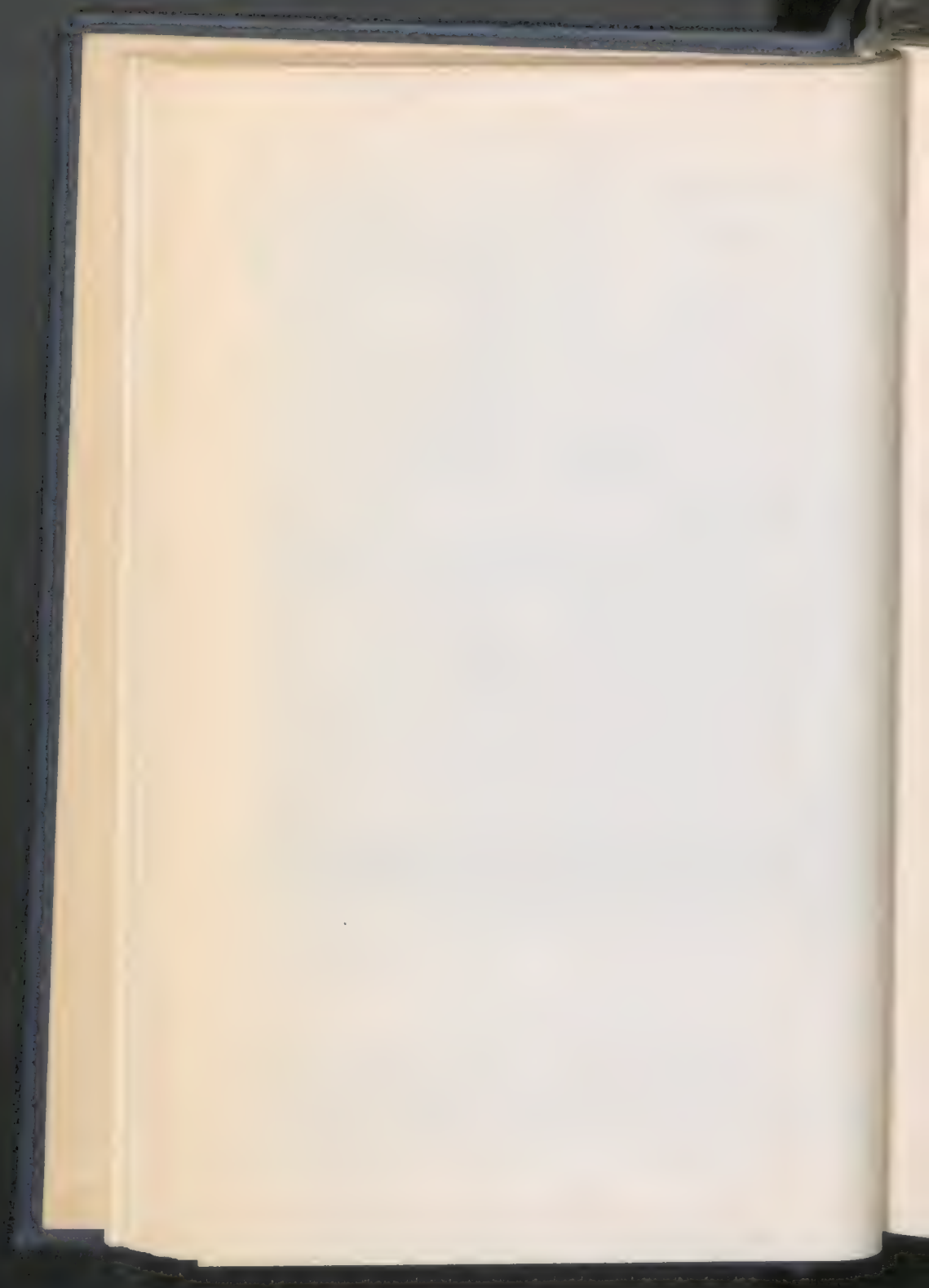
### ENTRANCE REQUIREMENTS

The student who is twenty-one years of age or over (or in special cases arising out of the national emergency, nineteen years or over) and who has not attended another institution within the year preceding his application to this University may register without filing records.

The student twenty-one years of age or over who has attended another institution within the year preceding application to this University must request a statement of good standing and honorable dismissal from the last institution attended.

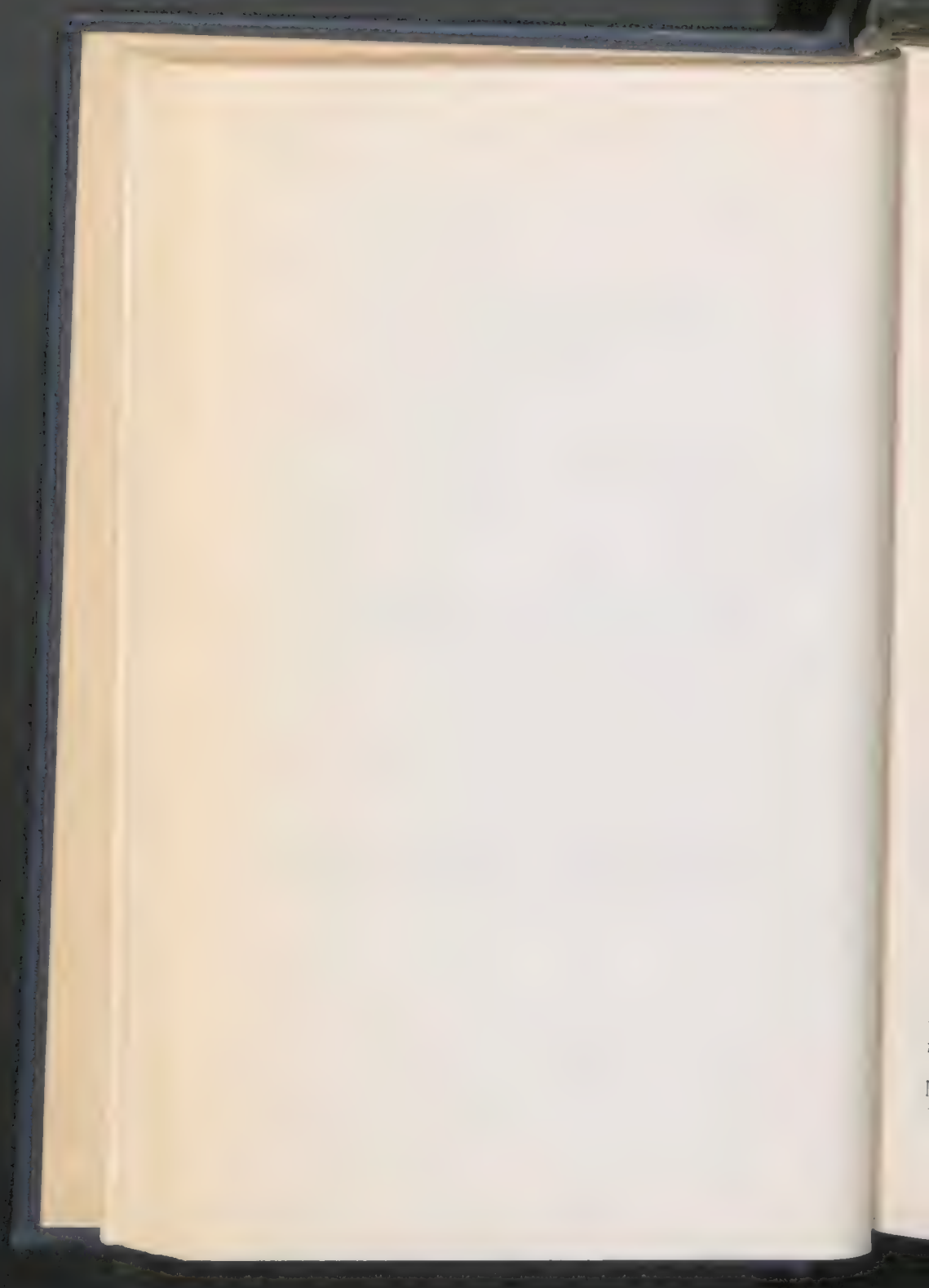
The student under twenty-one years of age must submit complete and satisfactory credentials.

*Transfer to Regular Status.*—A "University student" may be transferred, at his request, to another college, school, or division of the University only upon complying with the regulations of the specific college, school, or division. The student should familiarize himself with the regulations concerning admission, residence, amount and quality of work. Specifically, he should note that in some cases not more than thirty (30) hours of credit may be transferred from this Division; that at least the last thirty (30) credit hours must be spent in residence in the college, school, or division preparing for the degree; and that a general quality-point index of 2.00 must be maintained, with an index of 2.50 in the major.



COURSES OF INSTRUCTION





## COURSES OF INSTRUCTION

Courses are offered in the Junior College, Columbian College (the senior college), the School of Medicine,\* the Law School,\* the School of Engineering,\* the School of Education, the School of Government.

In each of the accelerated sessions of seven and one-half weeks, classes meet Monday through Friday, unless otherwise indicated.

In the non-accelerated term of fifteen weeks, classes meet Monday, Wednesday, and Friday, unless otherwise indicated.

### EXPLANATION OF COURSE NUMBERS

First-group courses, numbered from 1 to 100, are planned for the student in the freshman or sophomore year. With the approval of the adviser and the dean, they may also be taken by a junior or senior. In certain instances, they may be taken by a graduate student to make up undergraduate deficiencies or as prerequisite to advanced courses, but they may not be credited toward a higher degree.

Second-group courses, numbered from 101 to 200, are planned for the student in the junior or senior year. They may be credited toward higher degrees only when registration for graduate credit has been approved at the beginning of the course by the dean responsible for the graduate work and by the officer of instruction, and when the completion of additional work has been certified by the officer of instruction.

Third-group courses, numbered from 201 to 300, are planned primarily for the graduate student. They are open, with the approval of the officer of instruction, to the qualified senior; they are not open to the Junior College student or any other undergraduate.

Course numbers followed by the letter "S" indicate courses extending through one fifteen-week term.

### INDICATION OF THE AMOUNT OF CREDIT

The number of hours of credit given for the satisfactory completion of a course is in most cases indicated in parentheses after the name of the course.

A credit hour represents one class hour or a minimum of two laboratory hours a week for a period of fifteen weeks.

\* See special bulletin.

The University reserves the right to change or withdraw any of the courses of instruction listed below.

## BIOLOGY

### FIRST SESSION

- 1 *Survey in Biology* (3) Bowman  
A review of the plant and animal kingdom and some general biological problems, with an introduction to the fields of evolution, heredity, public health, and conservation. Material fee, \$3. 9:10 to 11:00 A.M. (Room: C-405)
- 211 *Research in Cytology* (3) Bowman  
Hours to be arranged.
- 213 *Research in Genetics* (3) Bowman  
Hours to be arranged.

### SECOND SESSION

- 2 *Survey in Biology* (3) Bowman  
Continuation of Biology 1. Material fee, \$3. 9:10 to 11:00 A.M. (Room: C-405)

## BUSINESS ADMINISTRATION

### FIRST SESSION

- 51 *Principles of Accounting* (3) Kennedy  
Principles and procedures of double-entry accounting with special reference to single proprietorships. 6:10 P.M. (Room: Gov. 200)
- 115 *Business Finance* (3) Kennedy  
Survey of financial policies involved in new enterprises and study of capital structures, promotion, earnings, surplus, reorganization, and governmental regulation. 7:10 P.M. (Room: Gov. 200)
- 181 *Public Utilities* (3) Kennedy  
Public utility characteristics, organization, management, financing, combinations, and accounting; regulation, valuation, and rate-making are stressed. 7:10 A.M. (Room: Gov. 202)

### SECOND SESSION

- 52 *Principles of Accounting* (3) Owens  
Accounting principles applied to partnerships and corporations; the valuation problem. 6:10 P.M. (Room: Gov. 200)
- 101 *Business Organization and Control* (3) Owens  
Simple and interrelated forms of business enterprise and their control by government. 7:10 P.M. (Room: Gov. 200)
- 102 *Business Management* (3) Owens  
Organization and management of a business with particular reference to a manufacturing concern. 7:10 A.M. (Room: Gov. 305)



## CHEMISTRY

## FIRST SESSION

11 *General Chemistry* (4)

Hooper

For students who are beginning the study of chemistry and for those with high school chemistry who fail the qualifying examination in Chemistry 12. This course is the first half of a full course. The second half, Chemistry 12, must be completed before credit is allowed. Material fee,\* \$9. Tues. through Fri., 9:10 A.M. to 1:00 P.M. (Room: Cor. 39)

21 *Inorganic Qualitative Analysis* (4)

Van Horn

Prerequisite: Chemistry 12. Required of all students of pharmacy and engineering, and recommended for premedical students. Material fee,\* \$9. Tues. through Fri., 9:10 A.M. to 1:00 P.M. (Room: Cor. 34)

151 *Organic Chemistry* (4)

Mackall, Wrenn

Chemistry of the carbon compounds. Prerequisite: Chemistry 12; however, students are advised to take Chemistry 21 and 22 before entering this course. This course is the first half of a full course. The second half, Chemistry 152, must be completed before credit is allowed. Lecture (3), laboratory (1). Material fee,\* \$9. Lecture: Mon., Wed., and Fri., 9:10 and 11:10 A.M. Laboratory: Tues. and Thurs., 10:10 A.M. to 1:00 P.M. (Room: Cor. 37)

297 *Research*

Hours, credits, and fees to be arranged.

The Staff

299 *Thesis* (3)

Hours to be arranged. Material fee,\* \$12.

The Staff

## SECOND SESSION

12 *General Chemistry* (4)

Hooper

Prerequisite: Chemistry 11 or high school chemistry and permission of the instructor. Material fee,\* \$9. Tues. through Fri., 9:10 A.M. to 1:00 P.M. (Room: Cor. 39)

22 *Inorganic Quantitative Analysis* (4)

Van Horn

Prerequisite: Chemistry 21 or the equivalent. The principles of gravimetric and volumetric analysis. Material fee,\* \$12. Tues. through Fri., 9:10 A.M. to 1:00 P.M. (Room: Cor. 34)

152 *Organic Chemistry* (4)

Mackall, Wrenn

Prerequisite: Chemistry 151. Chemistry of the carbon compounds. Lecture (2), laboratory (2). Material fee,\* \$12. Lecture: Mon., Wed., and Fri., 9:10 and Wed., 11:10 A.M. Laboratory: Mon., Tues., Thurs., and Fri., 10:10 A.M. to 2:00 P.M. (Room: Cor. 37)

\* A breakage deposit of \$10, payable in advance, is required of the student registered for one or more chemistry courses requiring a material fee.

- 298 *Research* The Staff  
Hours, credits, and fees to be arranged.
- 300 *Thesis* (3) The Staff  
Hours to be arranged. Material fee.\* \$12.

## FIFTEEN-WEEK TERM

- 12S *General Chemistry* (4) Mackall and Feldman  
Prerequisite: Chemistry 11 or high school chemistry and permission of the instructor. Material fee.\* \$9. Lecture: Tues. and Thurs., 9:10 A.M.; laboratory: Tues. and Thurs., 1:10 to 4:00 P.M. (Room: Cor. 39)
- 155S *Organic Chemistry: Preparations* (2) Wrenn  
The synthesis of carbon compounds, and a study of the fundamental techniques of purification. Prerequisite: Chemistry 22 and 152. Six hours a week of laboratory work to be arranged. Material fee.\* \$12.
- 191S *History of Chemistry* (2) Mackall  
The development of chemistry and the biographies of eminent contributors to the sciences. Prerequisite: Chemistry 152; prerequisite or concurrent registration: Chemistry 22. Mon. and Wed. 8:10 P.M. (Room: Cor. 37)
- 251S *Advanced Organic Chemistry* (3) Wrenn  
An introduction to the literature of organic chemistry; the study of the syntheses, reactions, and properties of carbon compounds; the fundamental theories of organic chemistry. Prerequisite: Chemistry 111-12 and 152. Open to the senior student with permission of the instructor. Mon., Wed., and Fri., 7:10 P.M. (Room: Cor. 37)

## ECONOMICS

## FIRST SESSION

- I *Introductory Economics*† (3) Watson  
Survey of the major economic institutions and economic problems in contemporary society.  
Section A: 8:10 A.M. (Room: Gov. 305)  
Section B: 6:10 P.M. (Room: Gov. 303)
- 101 *Economic Theory* (3) Watson  
Introduction to formal economic theory; advanced analysis of demand, supply, and price relations. 7:10 A.M. (Room: Gov. 203)
- 105 *Economic Fluctuation: Business Cycles* (3) \_\_\_\_\_  
Analysis of strategic factors in economic instability and economic retardation; survey of recent business cycle theories. 7:10 P.M. (Room: Gov. 300)

\* A breakage deposit of \$10, payable in advance, is required of the student registered for one or more chemistry courses requiring a material fee.

† Economics 1-2 is prerequisite to all other courses in economics.

125 *Monetary Problems* (3)

Survey of monetary developments since the first World War; monetary policies in the 1930's; war finance; post-war monetary reconstruction. 6:10 P.M. (Room: Gov. 202)

192 *Contemporary Banking, Currency, and Exchange in Latin America* (3)

Survey of monetary and banking developments in important Latin American republics since the first World War. 6:10 P.M. (Room: Gov. 301)

Corliss

SECOND SESSION

2 *Introductory Economics* \* (3)

Continuation of Economics I.

Section A: 8:10 A.M. (Room: Gov. 305)

Section B: 6:10 P.M. (Room: Gov. 303)

Kerr

102 *Development of Economic Thought* (3)

Economic doctrines since the mercantilist writers; the history of the major schools of thought; influence of changing problems on theory. 7:10 A.M. (Room: Gov. 202)

Burns

146 *Economic Security and Social Insurance* (3)

Economic and social problems of unemployment and destitution; analysis of the federal social security program; survey of the Beveridge and other plans for post-war social security. 6:10 P.M. (Room: Gov. 300)

Burns

170 *Economic Geography* (3)

The economics of natural resources: raw materials; staple crops; and location of industry. 7:10 P.M. (Room: Gov. 300)

EDUCATION

FIRST SESSION

109 *Learning and the Principles of Teaching* (3)

Psychological bases of learning; laws of learning and growth; nature and psychology of subject-matter; caring for individual differences; mental hygiene; principles of teaching. Mon., Wed., and Fri., 7:10 to 8:50 P.M. (Room: D-205)

Hall

279 *Administering a Wartime School Program* (3)

Use of buildings and equipment; community services rendered by school personnel; student organization in wartime; inservice training of teachers. Mon. and Wed., 7:10 to 9:10 P.M. (Room: D-203)

Fox

285 *Extra-classroom Activities* (3)

Victory Corps; stamp and bond drives; conservation and salvage activities; cooperative work programs; student self-government; assemblies; school publications; homeroom programs. Tues. and Thurs., 7:10 to 9:10 P.M. (Room: D-203)

Fox

Economics 1-2 is prerequisite to all other courses in economics.



- 291 *Education and the Post-war World* (3) Hall  
Evaluation of current educational programs in relation to existing conditions and trends; the type of educational program necessary to meet post-war conditions. Tues. and Thurs., 7:10 to 9:10 P.M. (Room: D-205)

*Individual Study* (3)

The Staff

A limited number of students will be permitted to enroll on an individual study basis for the following courses regularly offered in the fall and winter terms:

Problems in Secondary School Science  
Administration of Secondary Education  
Organization and Administration of a School System  
Management Problems of the Superintendent  
State School Administration  
Public Relations in School Administration

- 297 *Thesis* (3)

Consultative Committee

SECOND SESSION

- 138 *Teaching the Social Studies* (3) Coyner  
War and post-war problems in the teaching of the social studies; aims and methods; classroom and library equipment; evaluation of textbooks; testing. Tues. and Thurs., 7:10 to 9:10 P.M. (Room: D-205)

- 156 *Secondary Education: The Junior and Senior High School* (3) Jarman

Development; purpose; relation to elementary education; organization and administration; wartime changes; guidance; program of studies; community relationships. Mon., Wed., and Fri., 7:10 to 8:50 P.M. (Room: D-203)

- 174 *Adult Education* (3) Jarman  
Extent and organization; interests, needs, and capacities of adult learners; techniques employed in motivating and directing learning activities; review of recent literature. Tues. and Thurs., 7:10 to 9:10 P.M. (Room: D-203)

- 228 *Teaching Materials in the Elementary Grades* (3) Coyner

Critical examination of texts, visual and auditory aids, and other materials available to elementary school teachers. Laboratory and discussion. Mon. and Wed., 7:10 to 9:10 P.M. (Room: D-205)

*Individual Study* (3)

The Staff

A limited number of students will be permitted to enroll on an individual study basis for the following courses regularly offered in the fall and winter terms:

Teaching of Geography  
Principles and Methods in the Senior High School  
Contemporary Problems in Education  
Early Childhood Education  
Elementary Education in the Intermediate Grades  
Comparative Education (Latin America)

298 *Thesis* (3)

Consultative Committee

SPECIAL SIX-WEEK SESSION

July 6 to August 17

- 130 *The Use of the Community in Teaching* (3) Coyner  
Class will visit near-by places of interest, gather materials, and organize units of work with a view to the enrichment and extension of classroom experiences. 11:10 A.M. (Room: D-205)

- 206 *Instruction and the Curriculum* (3) Hall  
Practical problems of revising instruction in terms of existing conditions—economic, social, and technological; aims, procedures, materials of instruction, and evaluation; emphasis upon needed changes in the curriculum of the present to meet post-war demands. 9:10 A.M. (Room: D-205)

- 217 *Contemporary Problems in Education* (3) Jarman  
Designed to help students formulate a personal philosophy of education. 8:10 A.M. (Room: D-203)

- 272 *Supervision: The Teacher and School Supervision* (3) Fox  
Aims and objectives of supervision in relation to wartime demands; personnel problems; supervisory techniques; evaluation of school efficiency. 10:10 A.M. (Room: D-203)

- Psychology 226 *Seminar: Clinical Psychology of Childhood* (3) Hunt  
(See the announcement of courses in the Department of Psychology.)

- Individual Study* (3) The Staff  
A limited number of students will be permitted to enroll on an individual study basis for the following courses regularly offered in the fall and winter terms:

Early Childhood Education  
Elementary Education in the Intermediate Grades  
Teaching of Geography  
Psychological Tests  
Principles and Methods in the Senior High School  
Comparative Education (Latin America)  
Problems in Secondary School Science  
Administration of Secondary Education  
Organization and Administration of a School System  
Management Problems of the Superintendent  
State School Administration  
Public Relations in School Administration

7-98 *Thesis* (3-3)

Consultative Committee

## ENGLISH

## FIRST SESSION

- 1 *Freshman English* (3) Cole, Kerr  
Grammatical review, exercises in composition, study and criticism of literary forms.  
Section A: 11:10 A.M. (Room: D-105)  
Section B: 7:10 P.M. (Room: D-105)
- 2 *Freshman English* (3) Kerr, Day  
Continuation of English 1.  
Section A: 10:10 A.M. (Room: D-105)  
Section B: 8:10 P.M. (Room: D-105)
- 91 *Introduction to European Literature* (3) Smith  
Consideration of various types. 7:10 P.M. (Room: D-301)
- 136 *Shakespeare's Principal Tragedies* (3) Tupper  
A study of Shakespeare's literary and theatrical technique. 7:10 P.M. (Room: D-304)
- 141 *The Neoclassical Movement* (3) Smith  
Poetry and prose from 1660 through Dryden. 8:10 P.M. (Room: D-302)
- 171 *Studies in American Literature* (3) Cole  
Major factors in the national cultural tradition as shown by outstanding writers. 6:10 P.M. (Room: D-302)
- 183 *The English Drama* (3) Tupper  
A historical survey. 6:10 P.M. (Room: D-304)

## SECOND SESSION

- 1 *Freshman English* (3) Shepard, Adams  
Grammatical review, exercises in composition, study and criticism of literary forms.  
Section A: 10:10 A.M. (Room: D-105)  
Section B: 6:10 P.M. (Room: D-104)
- 2 *Freshman English* (3) Adams, Irvine  
Continuation of English 1.  
Section A: 11:10 A.M. (Room: D-105)  
Section B: 7:10 P.M. (Room: D-105)
- 92 *Introduction to European Literature* (3) Shepard  
Continuation of English 91. 7:10 P.M. (Room: D-300)
- 142 *The Neoclassical Movement* (3) Irvine  
Poetry and prose from 1700 to 1750. 8:10 P.M. (Room: D-105)

## The Summer Sessions

37

- 166 *Recent Trends in American Literature* (3) Baker  
A study of contemporary American poetry and prose. 12:10 A.M.  
(Room: D-1-3)

- 193 *Introduction to the Study of Poetry* (3) Baker  
The teaching and interpretation of poetry. 11:10 A.M. (Room: D-1-3)

### FIFTEEN-WEEK TERM

- 1S *Freshman English* (3) Howard  
Grammatical review, exercises in composition, study and criticism of literary forms. Mon., Wed., and Fri., 9:10 A.M. (Room: D-1-4)

- 2S *Freshman English* (3) Yoklavich  
Continuation of English 1. Mon., Wed., and Fri., 8:10 P.M. (Room: D-104)

- 51S *Introduction to English Literature* (3) Howard  
From the beginnings to about 1800. Mon., Wed., and Fri., 10:10 A.M.  
(Room: D-104)

- 71S *Introduction to American Literature* (3) Bolwell  
From 1620 to the Civil War. Mon., Wed., and Fri., 6:10 P.M. (Room: D-305)

- 72S *Introduction to American Literature* (3) Bolwell  
From the Civil War to the present. Mon., Wed., and Fri., 7:10 P.M.  
(Room: D-305)

## GERMAN

### FIRST SESSION

- 1 *First-year German* (3) Rogers  
Essentials of grammar and translation of simple prose. 6:10 P.M.  
(Room: D-201)

- 5 *Second-year German* (3) Rogers  
Composition and conversation; readings in prose and poetry. 7:10 P.M.  
(Room: D-201)

### SECOND SESSION

- 2 *First-year German* (3) Legner  
Continuation of German 1. Essentials of grammar and translation of simple prose. 6:10 P.M. (Room: D-201)

- 6 *Second-year German* (3) Legner  
Continuation of German 5. Composition and conversation; readings in prose and poetry. 7:10 P.M. (Room: D-201)



## HISTORY

## FIRST SESSION

- 39 *The Development of European Civilization to 1500* (3) Kayser  
Primarily for freshmen. The political, social, economic, and cultural history of the Old World from ancient times through the Middle Ages. 6:10 P.M. (Room: Gov. 101)
- 71 *The Development of American Civilization to 1865* (3) Wilgus  
Primarily for sophomores. The background of modern America; the political, social, economic, and cultural forces of the United States in their world setting. 9:10 A.M. (Room: Gov. 101)
- 130 *Nationalism* (3) Kayser  
The historical evolution of modern nationalism. Prerequisite: History 39-40. 7:10 P.M. (Room: Gov. 201)
- 162 *Hispanic American History since Independence* (3) Wilgus  
A survey of the political, economic, social, and institutional affairs of the Ibero-American nations. 6:10 P.M. (Room: Gov. 201)
- 191 *Current History* (1) Kayser  
Contemporary events in their world setting. Mon. 11:10 A.M. to 1:00 P.M. (Room: D-104)
- 291 *Seminar* (3) The Staff  
Prerequisite: approval by the Department. Hours to be arranged.

## SECOND SESSION

- 40 *The Development of European Civilization since 1500* (3) Ragatz  
Primarily for freshmen. The political, social, economic, and cultural history of the Old World from the Age of Exploration to the present. 6:10 P.M. (Room: Gov. 101)
- 72 *The Development of American Civilization since 1865* (3) ———  
Primarily for sophomores. The emergence and problems of modern America; the political, social, economic, and cultural forces of the United States in their world setting. 9:10 A.M. (Room: Gov. 101)
- 145 *Modern Imperialism* (3) Ragatz  
International rivalries in Africa, Asia, and the Pacific Basin. Prerequisite: History 39-40 or 151-152. 7:10 P.M. (Room: Gov. 201)
- 192 *Current History* (1) Johnstone  
Continuation of History 191. Mon., 11:10 A.M. to 1:00 P.M. (Room: D-104)

292 Seminar (3)

Continuation of History 291. Hours to be arranged.

The Staff

LAW

Courses will be offered in Agency, Contracts I, Domestic Relations, Sales, Security Transactions, Torts. A folder containing complete information about these courses will be mailed upon request to the Dean of the Law School.

MATHEMATICS

FIRST SESSION

- 11 *Introductory College Mathematics* (3) Williams  
Prerequisite: one year each of high school algebra and high school geometry. 7:10 P.M. (Room: D-204)
- 12 *Plane Analytic Geometry* (3) Mears  
Prerequisite: Mathematics 11. 8:10 P.M. (Room: D-202)
- 19 *Differential Calculus* (3) Williams  
Prerequisite: Mathematics 12. 6:10 P.M. (Room: D-204)
- 20 *Integral Calculus* (3) Mears  
Prerequisite: Mathematics 19. 6:10 P.M. (Room: D-202)
- 138 *Advanced Calculus* (3) Mears  
Prerequisite: Mathematics 20. 7:10 P.M. (Room: D-202)

SECOND SESSION

- 11 *Introductory College Mathematics* (3) Johnston  
Prerequisite: one year each of high school algebra and high school geometry. 7:10 P.M. (Room: D-202)
- 12 *Plane Analytic Geometry* (3) \_\_\_\_\_  
Prerequisite: Mathematics 11. 7:10 P.M. (Room: D-204)
- 19 *Differential Calculus* (3) Johnston  
Prerequisite: Mathematics 12. 8:10 P.M. (Room: D-202)
- 20 *Integral Calculus* (3) \_\_\_\_\_  
Prerequisite: Mathematics 19. 6:10 P.M. (Room: D-204)
- 132 *Differential Equations* (3) Johnston  
Prerequisite: Mathematics 20. 6:10 P.M. (Room: D-202)

FIFTEEN-WEEK TERM

- 11S *Introductory College Mathematics* (3) Taylor  
Prerequisite: one year each of high school algebra and high school geometry. Mon., Wed., and Fri., 10:10 A.M. (Room: D-204)

12S *Plane Analytic Geometry* (3)

Taylor

Prerequisite: Mathematics 11. Mon., Wed., and Fri., 11:10 A.M.  
(Room: D-204)

## PHILOSOPHY

## FIRST SESSION

1 *Introduction to Philosophy* (3)

Garnett

Designed to introduce the student to the vital issues, both theoretical and practical, with which human intelligence is confronted. 6:10 P.M.  
(Room: D-203)

122 *Logic* (3)

Garnett

A critical study of deductive logic, induction, and the application of the principles of reflective thought in the natural and social sciences. 7:10 P.M. (Room: D-302)

## PHYSICS

## FIRST SESSION

55 *Physical Measurements* (2)

Cheney

Theory and use of methods of precise measurements. Prerequisite: Physics 6 and 7; Mathematics 19. Material fee, \$6. Tues. and Thurs., 7:10 P.M.; laboratory: Wed. and Fri., 7:10 to 9:10 P.M. (Room: Cor. 27)

## SECOND SESSION

8 *General Physics* \* (2)

Cheney

The experimental evidence concerning the nature of light, electricity and matter; practical development of modern physics, such as X-ray apparatus, electron tubes, and radio. Prerequisite: Physics 6 and 7. Tues. through Fri., 7:10 P.M. (Room: Cor. 27)

## FIFTEEN-WEEK TERM

5S *General Physics* (3)

Lang

Introduction to the scientific method as used in physics; physical properties of solids, liquids, and gases; phenomena of heat and light. Material fee, \$6. Mon. and Wed., 11:10 A.M. Laboratory: Fri., 1:30 to 4:30 P.M. (Room: Cor. 10)

6S *General Physics* \* (3)

Cheney and Sta

Mechanics, wave-motion, sound, and the theory of optical instruments. Prerequisite: Physics 3-4 or 5. Material fee, \$6.  
Section A: Tues. and Thurs., 11:10 A.M.; laboratory: Wed., 1:40 to 3:30 P.M. (Room: Cor. 10)  
Section B: Tues. and Thurs., 6:10 P.M.; laboratory: Tues., 8:10 to 10:00 P.M. (Room: Cor. 10)

\* Physics 6, 7, and 8 constitute the basic course in physics. Students who have credit in high school physics from an accredited high school may omit Physics 3-4, or 5 as a prerequisite to Physics 6 and 7, provided that they pass a qualifying examination given at the beginning of the course (Physics 6 or Physics 7)

## The Summer Sessions

41

### 7S General Physics \* (3)

Electricity; magnetism; the principles underlying the uses of electric power in everyday life. Prerequisite: Physics 3-4 or 5. Material fee, \$6. Tues. and Thurs., 6:10 P.M. Laboratory: Thurs., 8:10 to 10:10 P.M. (Room: Cor. 10) Cheney and Staff

### 116S Optics (3)

Geometrical and physical optics. Prerequisite: Physics 8; Mathematics 20. Mon., Wed., and Fri., 6:10 P.M. (Room: Cor. 27) Gamow

### 132S Electronics (3)

Electron emission from solids; electron tubes and electron tube circuits. Prerequisite: Physics 8, 55, and 125; or Physics 8 and 55. Electrical Engineering 9-10. Lectures—Mon. and Wed., 7:10 P.M. Laboratory—Mon., 8:10 to 10:00 P.M. Material fee, \$6. (Room: Cor. 10) Brown

## POLITICAL SCIENCE

### FIRST SESSION

#### 9 Government of the United States (3)

Fundamental principles of political science and the organization of the Federal Government. 6:10 P.M. (Room: Gov. 102) West

#### 10 Government of the United States (3)

The organization of state and local governments; relationships with the Federal Government; the functioning of the federal, state, and local governments in the United States. 7:10 P.M. (Room: Gov. 102) West

#### 171 International Politics (3)

A survey of the basis of international relations with discussion of post-war problems. 6:10 P.M. (Room: D-104) Johnstone

#### 281 Seminar: War and Post-war Problems (3)

Selected problems of international politics. Tues., 8:10 P.M. (Room: D-203) Johnstone

### SECOND SESSION

#### 9 Government of the United States (3)

Fundamental principles of political science and the organization of the Federal Government. 9:10 A.M. (Room: Gov. 102)

#### 10 Government of the United States (3)

The organization of state and local governments; relationships with the Federal Government; the functioning of the federal, state, and local governments in the United States. 6:10 P.M. (Room: Gov. 102) Tillema

Physics 6, 7, and 8 constitute the basic course in physics. Students who have credit for school physics from an accredited high school may omit Physics 6, 7, or 8 as a prerequisite for Physics 9, 10, or 11, provided that they pass a qualifying examination given at the beginning of the semester (Physics 6 or Physics 7).



### III *The Governments of Europe: The Democracies* (3)

Tillema

A survey of the democracies of Europe, with emphasis upon the government of Great Britain. 7:10 P.M. (Room: Gov. 102)

## PSYCHOLOGY

### FIRST SESSION

#### I *General Psychology* (3)

Foley

The fundamental principles underlying human behavior.

Section A: 8:10 A.M. (Room: D-105)

Section B: 6:10 P.M. (Room: D-105)

#### II *Clinical Psychology* (3)

Hunt

The causes, diagnosis, treatment, and prevention of various types of maladjustments and mental disorders. 6:10 P.M. (Room: D-205)

#### III *Psychological Tests* (3)

Hunt

A survey of psychological tests and their more common uses in personnel, educational, and military organizations. Material fee, \$2.25. 7:10 P.M. (Room: D-303)

#### IV *Public Personnel Psychology* (3)

Hubbard

A survey of inservice personnel activities. 6:10 P.M. (Room: D-303)

#### 203 *Research in Psychology*

The Staff

Hours and credits to be arranged.

### SECOND SESSION

#### 2 *Applied Psychology* (3)

The applications of psychology in business, industry, medicine, law, athletics, education, and art.

Section A: 8:10 A.M. (Room: D-105)

Section B: 6:10 P.M. (Room: D-105)

#### 125 *Child Psychology* (3)

A genetic approach to the study of the child. 6:10 P.M. (Room: D-205)

#### 146 *Employee Counseling* (3)

A study of the principles and techniques of individual counseling as applied to employees, with special reference to the problems of counselors in government departments. 6:10 P.M. (Room: D-303)

#### 151 *Social Psychology* (3)

The social foundations of attitudes, behavior, and adjustment, especially in the family, neighborhood, school, church, fraternity, political party, occupation, and other group situation. 7:10 P.M. (Room: D-303)

#### 204 *Research in Psychology*

The Staff

Hours and credits to be arranged.

## The Summer Sessions

43

### SPECIAL SIX-WEEK SESSION

- 226 *Seminar: Clinical Psychology of Childhood* \* (3) Hunt  
A study of behavior problems, personality disturbances, and mental disorders of children, with clinic observations once a week at Children's Hospital. 10:10 A.M. (Room: D-323)

### PUBLIC SPEAKING

#### SECOND SESSION

- 1 *Principles of Effective Speaking* (3) Yeager  
Short informative speeches; delivery practice; pronunciation, enunciation, and diction; impromptu speaking. Speech recordings are required. Recording fee, \$1.50. 7:10 P.M. (Room: Aud. A)
- 109 *Radio Speaking* (3) Yeager  
The production of radio programs with emphasis on speeches, interviews, discussions, news reporting, and news commentating. Prerequisite: three credit hours of public speaking. Recording fee, \$3.00. 8:10 P.M. (Room: Aud. A)

### ROMANCE LANGUAGES

#### FIRST SESSION

##### French

- 1 *First-year French* (3) Caskie  
Grammar, translation, pronunciation. 6:10 P.M. (Room: D-200)
- 5 *Second-year French* (3) Caskie  
Reading of modern French, grammar review, oral practice. 7:10 P.M. (Room: D-200)

##### Portuguese

- 1 *First-year Portuguese* (3) d'Eça  
For beginners. Grammar, composition, drill in pronunciation, translation of modern Portuguese prose. 6:10 P.M. (Room: D-103)
- 5 *Second-year Portuguese* (3) d'Eça  
Advanced grammar and composition, reading of modern Portuguese prose, oral practice, introduction to Portuguese and Brazilian civilization. Prerequisite: Portuguese 1-2 or the equivalent. 7:10 P.M. (Room: D-103)

This course is offered in the Special Six-Week Session of the School of Education, July 6 to 17.

## Spanish \*

- 1 *First-year Spanish* (3) Protzman, Powell  
Grammar, translation, pronunciation.  
Section A: 9:10 A.M. (Room: D-202)  
Section B: 6:10 P.M. (Room: D-206)
- 2 *First-year Spanish* (3) Powell  
Continuation of Spanish 1. 7:10 P.M. (Room: D-206)
- 5 *Second-year Spanish* (3) Protzman, Alonso  
Reading of modern Spanish, grammar review, oral practice.  
Section A: 10:10 A.M. (Room: D-202)  
Section B: 7:10 P.M. (Room: D-306)
- 109 *Conversation and Composition* (3) Alonso  
6:10 P.M. (Room: D-306)
- 129 *The Spanish American Novel* (3) Corliss  
Development of the novel in Spanish America. Lectures, collateral reading, and class analysis of texts. 7:10 P.M. (Room: D-301)

## SECOND SESSION

## French

- 2 *First-year French* (3) Deibert  
Continuation of French 1. 6:10 P.M. (Room: D-200)
- 6 *Second-year French* (3) Deibert  
Continuation of French 5. 7:10 P.M. (Room: D-200)

## Portuguese

- 2 *First-year Portuguese* (3) \_\_\_\_\_  
Continuation of Portuguese 1. 6:10 P.M. (Room: D-103)
- 6 *Second-year Portuguese* (3) \_\_\_\_\_  
Continuation of Portuguese 5. 7:10 P.M. (Room: D-103)

## Spanish

- 1 *First-year Spanish* (3) Vázquez  
Grammar, translation, pronunciation. 7:10 P.M. (Room: D-206)
- 2 *First-year Spanish* (3) Vaughn, Vázquez  
Continuation of Spanish 1.  
Section A: 9:10 A.M. (Room: D-202)  
Section B: 6:10 P.M. (Room: D-206)
- 6 *Second-year Spanish* (3) Vaughn, Morales  
Continuation of Spanish 5.  
Section A: 10:10 A.M. (Room: D-202)  
Section B: 7:10 P.M. (Room: D-306)

\* Spanish 5-6 or the equivalent is prerequisite for all second-group courses in Spanish.

- 110 *Conversation and Composition* (3) Morales  
Continuation of Spanish 109. 6:15 P.M. (Room: D-306)
- 130 *The Spanish American Novel* (3)  
Continuation of Spanish 129. 7:15 P.M. (Room: D-301)

## SECRETARIAL STUDIES

Courses will be offered in Typewriting, Shorthand, Filing, Indexing, Business Machines, Applied Bookkeeping for Secretaries, and Business Writing. For detailed information, see the special bulletin of the Department of Secretarial Studies.

## STATISTICS

### FIRST SESSION

- 101 *Economic and Sociological Statistics* (3) Weida  
Sources of data; collecting and assembling of statistics; tabulation; graphical analysis; averages; measures of dispersion; frequency distribution; index numbers; time series; the normal curve; correlation. Prerequisite: at least one entrance unit in algebra. Laboratory fee, \$5. 7:10 to 8:30 P.M. (Room: Gov. 401)
- 157 *Intermediate Theoretical Statistics* (3) Weida  
Adjustment of observations; curve fitting; design of experiment; simple sampling; theories of dispersion; expectation; frequency functions; Thiele's semi-invariants; Gram-Charlier series. Prerequisite: Mathematics 20. 6:10 P.M. (Room: Gov. 401)

### SECOND SESSION

- 102 *Economic and Sociological Statistics* (3) Weida  
Continuation of Statistics 101. Laboratory fee, \$5. 7:10 to 8:30 P.M. (Room: Gov. 401)
- 158 *Intermediate Theoretical Statistics* (3)  
Continuation of Statistics 157. 6:10 P.M. (Room: Gov. 401)

## ZOOLOGY

### FIRST SESSION

- 1 *Introduction to Zoology* (4) Young  
An introduction to the study of the structures, functions, and relation of animals and of the fundamental biological principles involved. Material fee, \$4.50. Mon. through Thurs., 7:10 to 10:20 P.M.; Fri., 7:10 to 9:20 P.M. Required of all premedical students. (Room: C-405)



- 141 *Comparative Vertebrate Anatomy* (3) Young  
Lectures on the organ systems of the vertebrates; laboratory dissections of types. Prerequisite: Zoology 1-2. Material fee, \$6. Daily, 7:10 to 9:10 P.M., and Mon., Wed., and Fri., 9:20 P.M. (Room: C-405)

- 253 *Research* The Staff  
Investigation of special problems. Hours and credits to be arranged.

- 299 *Thesis* (3) The Staff

## SECOND SESSION

- 2 *Introduction to Zoology* (4) Hansen  
Continuation of Zoology 1. Material fee, \$4.50. Mon. through Thurs., 7:10 to 10:20 P.M., Fri., 7:10 to 9:20 P.M. (Room: C-405)

- 142 *Comparative Vertebrate Anatomy* (3) Hansen  
Continuation of Zoology 141. Material fee, \$4.50. Daily, 7:10 to 9:10 P.M., and Mon., Wed., and Fri., 9:20 P.M. (Room: C-405)

- 254 *Research* The Staff  
Continuation of Zoology 253. Hours and credits to be arranged.

- 300 *Thesis* (3) The Staff

SCHEDULE OF COURSES

**SCHEDULE OF COURSES\***  
**FIRST SESSION—Accelerated Program†**

June 7–July 28

**MORNING CLASSES**

7:10	8:10	9:10	10:10	11:10	12:10
Bus. Adm. 181 Econ. 151	Econ. 1 A Psych. 1 A	Biol. 1..... Chem. 11..... (T. through F.) Chem. 21..... (T. through F.) Chem. 151..... (M.W.F.) Hist. 71 Sp. 1 A	Chem. 151 lab..... (T. Th.) Eng. 2A Sp. 5 A	Chem. 151 (M.W.F.) Eng. 1 A Hist. 191 (M.)	

\* Seminars and research courses for which hours are to be arranged will be found under the department announcements.

† Classes meet Monday through Friday unless otherwise indicated.







6:10	7:10	8:10
Bus. Adm. 52	Bus. Adm. 101	Eng. 142
Econ. 2 B	Econ. 170	Math. 19
Econ. 146	Ed. 138 (T.Th.)	Pub. Sp. 109
Eng. 1 B	Ed. 156 (M.W.F.)	
Ger. 2	Ed. 174 (T.Th.)	
Hist. 40	Ed. 228 (M.W.)	
Math. 132	Eng. 2 B	
Math. 10	Eng. 92	
Pol. Sc. 10	Ger. 6	
Psych. 2 B	Hist. 145	
Psych. 125	Math. 11	
Psych. 146	Math. 12	
Fr. 2	Physics 8 (T. through F.)	
Port. 2	Pol. Sc. 111	
Sp. 2 B	Psych. 151	
Sp. 110	Pub. Sp. 1	
Stat. 158	Fr. 6	
	Port. 6	
	Sp. 1	
	Sp. 6 B	
	Sp. 130	
	Stat. 102	
	Zool. 2	
	(Except F., when class adjourns at 9:20)	
	Zool. 142	
	(Also M.W.F., 9:20)	
		(8:30)
		(10:20)

## NON-ACCELERATED FIFTEEN-WEEK TERM \*

June 7—September 17

## DAYTIME CLASSES

9:10	10:10	11:10	Afternoon Laboratory Hours
Chem. 12 S (T.Th.) Eng. 1 S	Eng. 51 S Math. 11 S	Math. 12 S Physics 5 S (M.W.) Physics 6 S A (T.Th.)	Chem. 12 S (T.Th. 1:10-4) Physics 5 S (F. 1:30-4:30) Physics 6 S A (W. 1:40-3:30)

## EVENING CLASSES

6:10	7:10	8:10	9:10
Eng. 71 S Physics 6 S B (T.Th.) Physics 7 S (T.Th.) Physics 116 S	Chem. 251 S Eng. 72 S Physics 132 S (M.W.)	Chem. 191 S (M.W.) Eng. 2 S Physics 6 S lab. (T.) Physics 7 S lab. (T.) Physics 132 S lab. (M.)	

\* Classes are held Monday, Wednesday, and Friday only unless otherwise indicated.

THE SCHOOL OF EDUCATION

Special Six-week Session—July 6–August 17

8:10 A.M.	9:10 A.M.	10:10 A.M.	11:10 A.M.
Ed. 217	Ed. 206	Ed. 272 Psych. 226	Ed. 130



Ac  
Ac  
Ac  
Au

Ba  
Ba  
Bic  
Bu

Cal  
Che  
Col  
Con  
E

B

Cou  
Cree  
In

M

Deat  
Doct  
Doct

Econ  
Educ  
Co  
Sch  
Engin  
Engli  
Entra

Facult  
Fees  
French

German  
Govern  
Gradu

History  
Hospit

## INDEX

- Academic Credit, 18
- Administration, officers of, 4
- Admission, 13, 21, 22, 23, 24, 25
- Advisors, 14
- Bachelor of Arts, degree of, 22, 24
- Bachelor of Science, degree of, 22, 24
- Biology, courses in, 30
- Business Administration, courses in, 30
- Calendar of the Summer Sessions, viii
- Chemistry, courses in, 31-32
- Columbia College, 22
- Combined curricula:
- Bachelor of Arts—Doctor of Medicine, 22
- Bachelor of Arts—Bachelor of Laws, 22
- Courses of instruction, 27-46
- Literature:
- Education of, in course descriptions, 29
- Maximum for Summer Sessions, 18
- Officers and Directors, 4
- Order of Education, degree of, 24
- Order of Philosophy, degree of, 22
- Politics, courses in, 32-33
- Registration:
- Courses in, 33-35
- School of, 23-24
- Engineering, School of, 23
- Spanish, courses in, 36-37
- Procedure, 13
- Faculty of the Summer Sessions, 11-12
- Financial regulations, 14-17
- Law, courses in, 43-44
- Law, courses in, 37
- Law, School of, 24
- Law, Council, 22
- Law, courses in, 38-39
- Law, services, 15
- Junior Certificate, 21
- Junior College, 21
- Law:
- Courses in, 39
- School, 23
- Library facilities, 6-7
- Living accommodations and costs, 17
- Master of Arts, degree of, 22, 24
- Master of Science, degree of, 22
- Mathematics, courses in, 39, 40
- Medical services, 15
- Medicine, School of, 22-23
- Officers of Administration, 4
- Philosophy, courses in, 40
- Physics, courses in, 40-41
- Political Science, courses in, 41-42
- Psychology, courses in, 42-43
- Public Speaking, courses in, 43
- Refund of tuition, 16-17
- Registration, 13-14
- Regulations, 18
- Romance Languages, courses in, 43-45
- Schedule of courses, 47-53
- Secretarial Studies, courses in, 45
- Spanish, courses in, 43-45
- Staff of Instruction, 11-12
- Statistics, courses in, 45
- Student life, 17
- Trustees, Board of, 3
- University Students, Division of, 25
- University history, organization, academic status, location, educational facilities, 5-7
- Withdrawal from the University, 16-17
- Zoology, courses in, 45-46



THE SCHOOL OF ENGINEERING  
1943-44

ACCELERATED  
WARTIME PROGRAM





THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLII

No. 2

---

THE SCHOOL OF ENGINEERING

---

WASHINGTON, D. C.

PUBLISHED IN APRIL  
MCMXLIII

BY THE UNIVERSITY

a  
in  
th  
m  
  
to  
  
en  
  
w  
  
w  
th  
  
en  
  
de  
an  
the  
thr  
two  
C  
Ba  
gin  
I  
ing  
and  
C  
roll  
sam  
ing

In  
offer  
exist

## THE SCHOOL OF ENGINEERING ACCELERATED WARTIME PROGRAM

The George Washington University School of Engineering has arranged its program to meet the needs of the Government and of industry for trained engineers and technicians now demanded by the war effort. Its accelerated program is adjusted to the requirements of the following groups of students:

Men deferred from military service to complete courses leading to Bachelor's degrees in engineering

High school graduates who wish to obtain the fundamentals of engineering before being called into service

Government employees with some training in engineering who wish to complete academic work necessary for degrees

Graduate engineers or those engaged in government engineering work who wish to gain further information and training in fields of their employment

Women who are training to replace men in engineering and scientific work.

This accelerated program takes the form of a three-term academic year. One full term of instruction, corresponding in length and content to the regular fall or winter term, is offered during the summer. This permits full-time students to work continuously throughout the year and complete the requirements for a degree in one and two-thirds years.

Curricula leading to the degrees of Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering are offered.

In cooperation with the Law School a six-year curriculum leading to the combined degrees of Bachelor of Science in Engineering and Bachelor of Laws is offered.

Courses are scheduled so as to permit employed students to enroll on a part-time basis. The curricula and teaching staff are the same for both full-time and part-time students. The courses leading to degrees are open to both men and women.

### SPECIAL COURSES

In addition to the regular curricula numerous special courses are offered in fields in which critical shortages of trained personnel exist. Examples of these are courses in Navigation, Management



Controls, Industrial Labor Relations, Naval Architecture, etc. College credits earned in these courses may be applied toward the degrees, as elective credits.

#### CURRICULUM FOR TECHNICAL TRAINEES

The School of Engineering offers a group of courses in the basic sciences and fundamentals of engineering designed primarily for young women high school graduates employed as Technical Trainees in government services. The purpose of this curriculum is to equip students with a knowledge of the essentials of mathematics and a selected group of sciences, to supplement the specialized training given "inservice"; thus to provide for a more rapid progress to work of higher responsibility. The required work may normally be completed in two years, part-time. Credit for the courses may be applied toward degrees in engineering.

---

For information concerning the regular curricula leading to degrees in engineering or concerning the special wartime courses apply to the Office of the Dean of the School of Engineering.

#### ENGINEERING, SCIENCE, AND MANAGEMENT WAR TRAINING PROGRAM

Under the auspices of the United States Office of Education courses in Engineering, Science, and Management War Training are offered by the School of Engineering. These courses are intended to provide special technical inservice training for government employees and employees of private industries connected with the war effort. A special certificate is given for their completion.

For further information consult the Director of the War Training Program in the School of Engineering.

## CONTENTS

Accelerated Wartime Program.....	v
CALENDAR OF THE SCHOOL OF ENGINEERING.....	viii
THE UNIVERSITY .....	
The Board of Trustees.....	i
Officers of Administration.....	4
THE SCHOOL OF ENGINEERING.....	
Staff of Instruction.....	7
General Information .....	9
Admission .....	11
Registration .....	11
Fees and Financial Regulations.....	12
Student Loans and Scholarships.....	12
General Regulations .....	15
The Degrees .....	15
.....	16
COURSES OF INSTRUCTION.....	
Civil Engineering .....	23
Electrical Engineering .....	24
Mechanical Engineering .....	27
Business Administration .....	30
Chemistry .....	33
Economics .....	34
English .....	36
Mathematics .....	36
Physics .....	37
Speech .....	38
Statistics .....	39

# CALENDAR OF THE SCHOOL OF ENGINEERING

## 1943-44

Date	Day	Occasion
May 10-June 5...	.....	Preregistration period for summer term
<b>SUMMER TERM:</b>		
June 7 .....	Monday .....	Registration for the summer term. Classes begin
Sept. 6 .....	Monday .....	Labor Day. Holiday
Sept. 10-30 .....	.....	Preregistration period for fall term
Sept. 17 .....	Friday .....	Summer term ends
<b>FALL TERM:</b>		
Oct. 1 and 2 ....	Friday and Saturday...	Registration for the fall term
Oct. 4 .....	Monday .....	Classes begin
Nov. 25-27 .....	Thursday through Saturday .....	Thanksgiving recess
Dec. 23-Jan. 1 ...	Thursday through Saturday .....	Christmas recess
Jan. 10-29 .....	.....	Preregistration period for winter term
Jan. 20 .....	Thursday .....	Last day of classes
Jan. 21-29 .....	Friday through Saturday	Examination period
<b>WINTER TERM:</b>		
Feb. 2 and 3 .....	Wednesday and Thursday .....	Registration for the winter term
Feb. 4 .....	Friday .....	Classes begin
Feb. 22 .....	Tuesday .....	Winter Convocation. Holiday
April 7 and 8 ....	Friday and Saturday...	Easter recess
May 8-June 3 ....	.....	Preregistration for the summer term
May 16 .....	Tuesday .....	Last day of classes
May 17-27 .....	Wednesday through Saturday .....	Examination period

THE UNIVERSITY



A  
C  
C  
\*  
J  
\*  
J  
M  
\*C  
\*P  
C  
U  
  
G  
Jo  
Al  
Th  
Lu  
M  
Me  
Wa  
Ch  
U  
Llo

## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President of the University ex officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
 Arthur Peter, LL.B., *Vice Chairman*  
 Harry Cassell Davis, A.M., LL.D., *Secretary*  
 Henry Parsons Erwin, A.B., *Assistant Secretary*

---

Avery DeLano Andrews, B.S., LL.B.  
 Clarence Aiken Aspinwall  
 Charles Silas Baker, A.M., LL.B.  
 Harvey Cleveland Bickel, LL.B.  
 John St. Clair Brookes, Jr., A.M., LL.B.  
 Bennett Champ Clark, A.B., LL.B.  
 John Henry Cowles, LL.D.  
 Mrs. Joshua Evans, Jr., A.B., Ed.D.  
 George Edgar Fleming, LL.M.  
 Robert Elliott Freer, LL.M., A.B.  
 Charles William Gerstenberg, Ph.B., LL.B., J.D.  
 Lysses S. Grant, 3d, B.S., Graduate  
 United States Engineers' School  
 Albert Grosvenor, A.M., LL.D., Litt.D.  
 John Edgar Hoover, LL.M., LL.D.  
 Alfred Henry Lawson, LL.B.  
 Theodore Williams Noyes, A.M., LL.M., LL.D.  
 Walter Henry Reichelderfer, M.D., LL.D.  
 Mrs. Henry Alvah Strong, LL.D.  
 Earle Thorpe, A.B.  
 Walter Rupert Tuckerman, A.B., LL.B.  
 Lester Wells, B.S., Graduate  
 United States Naval War College  
 Lloyd Bennett Wilson

Nominated by the alumni

## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Harold Griffith Sutton, M.S., *Director of Admissions*  
Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*  
John Russell Mason, B.S. in L.S., A.M., *Librarian*  
Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
Henry William Herzog, B.S., *Comptroller*  
Allen Howard Connolly, B.S., *Business Manager*  
Benjamin Franklin Dean, Jr., M.S., M.D., *Acting Director of Health Administration*  
Vinnie Giffen Barrows, A.M., *Director of Personnel Guidance*  
Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Countries*  
Lester Allan Smith, A.M., *Alumni Secretary*

### THE SCHOOL OF ENGINEERING

Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of Engineering*  
Carl Hugo Walther, B.E., M.C.E., *Assistant to the Dean of the School of Engineering*  
Helen Madigan, *Secretary to the Dean of the School of Engineering*

## THE UNIVERSITY

The George Washington University operates under a charter granted by an act of Congress of February 9, 1821, to Columbian College in the District of Columbia. In 1873 the name was changed to "Columbian University" and in 1904 to "The George Washington University".

The University as it is now organized consists of the Junior College, comprising the work of the freshman and sophomore years; Columbian College, the senior college of arts and sciences, which offers work leading to the Bachelor's and Master's degrees; the Graduate Council, which offers work leading to the degree of Doctor of Philosophy; the professional schools, which include Medicine, Law, Engineering, Pharmacy, Education, and Government; the Division of University Students, which makes the work of the University accessible to the mature student; the Division of Extension; the Inter-American Center; and the Summer Sessions.

The George Washington University is on the approved list of the Association of American Universities, the standard accrediting body for the United States. This fact not only assures to students the academic standards of this accrediting body, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women.

### THE UNIVERSITY LIBRARY

The University Library contains more than 150,000 volumes. The well equipped six-story Library building houses all of the library except the law and medical collections.

### OTHER LIBRARY FACILITIES

The student has access also to the Library of Congress; the Public Library of the District of Columbia and its branches; the Library of the Carnegie Endowment for International Peace; the Library of the American Union; the Library of the Bureau of Railway Economics; the Library of the United States Department of Agriculture, with its scientific departmental collections; the Library of the United States Office of Education; the Army Medical Library; the Library of the Smithsonian Institution; and many of the other great special collections of the government departments.



## GOVERNMENTAL INSTITUTIONS ACCESSIBLE TO STUDENTS

The Congress of the United States has made the scientific resources of the Government accessible to students under the terms of the following joint resolution, approved April 12, 1892:

*Resolved by the Senate and House of Representatives of the United States of America, in Congress assembled, That the facilities for research and illustration be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:*

- One. Of the Library of Congress.
- Two. Of the National Museum.
- Three. Of the Patent Office.
- Four. Of the Bureau of Education.
- Five. Of the Bureau of Ethnology.
- Six. Of the Army Medical Museum.
- Seven. Of the Department of Agriculture.
- Eight. Of the Fish Commission.
- Nine. Of the Botanic Gardens.
- Ten. Of the Coast and Geodetic Survey.
- Eleven. Of the Geological Survey.

THE SCHOOL OF ENGINEERING

\*  
\*  
\*  
J  
F  
F  
M  
B  
F  
G  
Jo  
Ne  
\*H  
Mi  
Ch  
Rol  
• c

# THE SCHOOL OF ENGINEERING

## THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of Engineering*  
Carl Hugo Walther, B.E., M.C.E., *Assistant to the Dean of the School of Engineering*

## STAFF OF INSTRUCTION

Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
Frank Artemas Hitchcock, M.S. in C.E., C.E., *Professor of Civil Engineering; Director of War Training Program*  
Norman Bruce Ames, M.S., E.E., LL.B., *Professor of Electrical Engineering*  
Arthur Frederick Johnson, M.E., Ph.D., *Professor of Mechanical Engineering*  
James Henry Taylor, Ph.D., *Professor of Mathematics*  
Frank Mark Weida, Ph.D., *Professor of Statistics*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Professor of Engineering Administration*  
Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
Benjamin Carpenter Cruickshanks, B.S. in M.E., *Professor of Mechanical Engineering*  
Forest Klaire Harris, Ph.D., *Professorial Lecturer in Electrical Engineering*  
Arbis Keulegan, Ph.D., *Professorial Lecturer in Mechanical Engineering*  
Joseph Young Dreisonstok, Comdr., U. S. Navy, B.S., *Professorial Lecturer on Navigation*  
Lawrence Smith, M.S. in E.E., Ph.D., *Professorial Lecturer in Electrical Engineering*  
Harold Friend Harding, Ph.D., *Associate Professor of Public Speaking*  
Elton Kent Akers, B.S., E.E., *Associate Professor of Electrical Engineering*  
Charles Edward Cook, B.S. in E.E., B.S. in C.E., C.E., *Associate Professor of Civil Engineering*  
Robert Gay Trumbull, B.S. in C.E., *Associate Professor of Mechanical Engineering*

On war leave 1943-44.



- \*Alfred Ennis, M.S., E.E., D.Eng., *Assistant Professor of Electrical Engineering*  
 DeWitt Clinton Knowles, Jr., M.S., *Assistant Professor of Chemistry*  
 \*Howard Henry Koster, M.S. in M.E., *Assistant Professor of Mechanical Engineering*  
 George Strollo, B.S. in C.E., M.C.E., *Assistant Professor of Civil Engineering*  
 Carl Hugo Walther, B.E., M.C.E., *Assistant Professor of Civil Engineering*  
 Maurice Hart Van Horn, Ph.D., *Assistant Professor of Chemistry*  
 Wolfram Karl Legner, Ph.D., *Assistant Professor of German*  
 Martin Alexander Mason, B.S. in Eng., Dr. Ing., *Lecturer in Mechanical Engineering*  
 Harry Joseph Keegan, B.M.E., *Lecturer in Mechanical Engineering*  
 Rudolph Michel, M.S. in M.E., *Lecturer on Naval Architecture*  
 Edward Iannelli, B.E.E., *Lecturer in Electrical Engineering*  
 Paul Guthrie Tomalin, *Lecturer on Naval Architecture*  
 Maurice Harold Irvine, Ph.D., *Instructor in English*  
 William Hayward, B.S. in C.E., *Associate in Civil Engineering*  
 Carl Harrison Smith, Jr., B.E.E., *Associate in Electrical Engineering*  
 John Brewster Willis, B.M.E., *Associate in Naval Architecture*  
 William Malkin, B.S., *Associate in Civil Engineering*  
 George Edward Sangster, B.E.E., *Associate in Electrical Engineering*  
 Earl Hildreth Lund, B.S. in C.E., C.E., LL.B., *Associate in Civil Engineering*  
 Louis Benjamin Pelzman, Lt. Comdr., U. S. Navy, B.S., *Associate Civil Engineering*

## THE DEAN'S COUNCIL ‡

1944

Benjamin Carpenter Cruickshanks  
 Frank Artemas Hitchcock

1945

Milton Kent Akers  
 Charles Edward Cook

1946

DeWitt Clinton Knowles  
 James Henry Taylor

\* On leave 1943-44.

‡ Elected by the Faculty. The President of the University and the Dean and Assistant Dean of the School of Engineering are members ex officio of the council.

## GENERAL INFORMATION

### INTRODUCTORY

#### HISTORY AND ACCREDITATION

The School of Engineering was organized in 1884 as the Corcoran Scientific School. In 1903 that school was combined with Columbian College in the Department of Arts and Sciences. In 1905 the engineering courses were placed under an administrative organization known as the Washington College of Engineering and in 1909 the name was changed to the College of Engineering and Mechanic Arts. In 1914 the name became the School of Engineering.

Courses leading to the degree of Bachelor of Civil Engineering, Bachelor of Mechanical Engineering, and Bachelor of Electrical Engineering are accredited by the Engineers' Council for Professional Development, the recognized accrediting body of the engineering profession, composed of representatives of the American Society of Civil Engineers, the American Institute of Mining and Metallurgical Engineers, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers, the Society for the Promotion of Engineering Education, the American Institute of Chemical Engineers, and the National Council of State Boards of Engineering Examiners.

#### ADVANTAGES OF LOCATION

The George Washington University School of Engineering is situated downtown Washington within a few blocks of many of the Government departments. This location is of twofold value to the prospective engineering student. He gains because the School is able to retain, as instructors in special courses, engineers of experience in Government service who are alert to current progress in federal wartime engineering. Moreover, the accessibility of the University makes it possible for employed students to continue their engineering studies on limited programs part-time students.

#### ADMISSION

An applicant for admission to the School of Engineering must obtain from the Office of the Director of Admissions of the University an application blank which he must fill out completely and return.

#### METHODS OF ADMISSION

An applicant from a secondary school must send to his high school principal the high school record form furnished by the University, with

the request that the principal fill out the form and mail it direct to the Office of the Director of Admissions.

An applicant who has previously attended one or more institutions of higher learning must request the registrar of each institution to mail to the Office of the Director of Admissions a transcript of his record, even though credits were not earned, together with an honorable dismissal.

#### ENTRANCE REQUIREMENTS

An acceptable certificate of graduation from an accredited secondary school, or the satisfactory passing of College Entrance Board examinations in secondary school subjects selected with the approval of the Director of Admissions is required.

*Specific Subject Requirements.*—Of the fifteen secondary school units required, nine and one-half must be distributed as follows: English (3), algebra (2), plane geometry (1), plane trigonometry ( $1\frac{1}{2}$ ), physics or chemistry (1), and foreign language or history (2).

#### REGISTRATION

Before a student may register for courses in engineering, he must satisfy the Office of the Director of Admissions that he is qualified for entrance to the University.

*Time and Place of Registration.*—Registration will be conducted in the Hall of Government, 710 Twenty-first Street N.W., from 11:00 A.M. to 7:00 P.M., on Monday, June 7, for the summer term; Friday and Saturday, October 1 and 2, for the fall term; and Wednesday and Thursday, February 2 and 3, for the winter term.

For preregistration dates, see the University calendar, page viii.

*Late Registration.*—A fee of \$5 will be charged for all registration after the stated registration days.

#### FEES AND FINANCIAL REGULATIONS

By authorization of the Board of Trustees, the following fees have been adopted, effective at the beginning of the 1943 summer term.

##### UNIVERSITY FEE

For each term or any part thereof

For the student registered per credit..... \$

For auditors\*, for each registration..... \$

##### TUITION FEES

For each credit hour for which the student registers..... \$

\* Payment of this fee does not entitle auditors to the general privileges to which payment of the preceding fee entitles resident students.



### ADDITIONAL COURSE FEES AND DEPOSITS

In certain courses additional fees and deposits, such as laboratory and material fees and breakage deposits, are charged as indicated in the course descriptions. These fees are charged by the term and, unless otherwise indicated, may be defrayed in three payments when the tuition is paid in this manner. Fees and deposits payable in advance are due in full at the time of registration. Breakage of apparatus is charged against the individual student, and the amount paid in excess of breakage will be credited to the student's account at the end of the course.

GRADUATION FEE .....	\$2.00
FEE FOR THE PROFESSIONAL THESIS .....	5.00
An annual fee: one half, plus the University fee, payable in advance at the time of each registration.	

### SPECIAL FEES

Late-registration fee, for failure to register within the designated period	5.00
Service fee, for late payment of tuition (see "Payment of Fees") .....	1.00
Reinstatement fee, for reinstatement after suspension for delinquency in fees .....	5.00
For examinations to qualify for advanced courses, and for all special examinations, for each subject .....	5.00

### UNIVERSITY FEE

Payment of the University fee covers all of the expenses incident to registration and, in addition, secures the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the services of the Placement Office; (3) the use of University library facilities, except as otherwise designated; (4) gymnasium privileges; (5) admission to all athletic contests, unless otherwise specified; (6) subscription to the *University Hatchet*, the student newspaper; (7) admission to University debates; (8) medical attention and hospital services described. These privileges, with the exception of the issuance of transcripts, terminate, and a student is no longer in residence, when he withdraws or is dropped from the University.

**Medical and Hospital Services.**—These services include: (1) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examinations; (2) hospitalization, including board, medicine, and nursing in the University Hospital for not more than two weeks during a school year—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, two weeks) is also to be determined by the Director of Health Administration.

The student is allowed, if he so desires, to engage physicians and nurses of his own choice, but when he does so he will be responsible for the fees charged.



This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of the University registration fee.

#### PAYMENT OF FEES

All fees are payable at the Office of the Cashier, 725 Twenty-first Street NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each term are due and payable in advance at the time of registration.

In exceptional cases, subject to the approval of the Comptroller, the student may sign a contract for term charges, except for the University fee and other fees payable in advance, permitting payments as follows:

*Summer Term 1943.*—One third at the time of registration, plus the University fee and deposits; one third on July 12, and one third on August 16.

*Fall Term.*—One third at the time of registration, plus the University fee and deposits; one third on November 3; one third on December 3.

*Winter Term.*—One third at the time of registration, plus the University fee and deposits; one third on March 3; one third on April 3.

During the summer term a student who fails to meet payments when due, on July 12 and August 16, but who pays his fees between July 13 and July 16 and between August 17 and August 20, is charged a service fee of \$1. A student who fails to make these payments by July 16 and August 20 will be suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5.

During the fall and winter terms a student who fails to meet payments when due, on the third day, but who pays his fees between the fourth and tenth days, inclusive, of the month in which payment is due, is charged a service fee of \$1. A student who fails to meet payments by the tenth day of the month in which payment is due will be suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5.

A suspended student may not be reinstated for the term after two weeks from the date of suspension. Applications for reinstatement are to be made to the dean of the college, school, or division in which the student is registered.

An auditor pays a University fee of \$2 and all other fees chargeable to the student registered for credit except the late-registration fee.

#### WITHDRAWALS AND REFUNDS

Application for withdrawal from the University or for change in class schedule must be made in person or in writing to the dean of the college.

school, or division in which the student is registered. Notification to an instructor is not an acceptable notice.

In authorized withdrawals and changes in schedules, financial adjustments will be made as follows:

*Summer Term 1943.*—Withdrawal dated on or before July 9, cancellation of the second and third payments; withdrawal dated on or before August 13, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to August 13.

*Fall Term.*—Withdrawal dated on or before October 31, cancellation of the second and third payments; withdrawal dated on or before November 30, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to November 30.

*Winter Term.*—Withdrawal dated on or before February 29, cancellation of the second and third payments; withdrawal dated on or before March 31, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to March 31.

In no case will the University fee or any part of an initial payment of fees be refunded, and in no case will tuition be reduced or refunded because of nonattendance upon classes.

Payment applies only to the term for which a registration charge is incurred and in no case will this payment be credited to another term.

A student granted "war leave" during a term will be credited with tuition payments made prior to the granting of such leave, which credit will be applicable toward the completion of the courses for which he was registered.

Any student in chemistry who fails to check out of the laboratory on or before the date set by the instructor, unless excused by the instructor, will forfeit the balance of his deposit. A student who drops a course before the end of the term must check out of the laboratory at once.

Authorization to withdraw and certification for work done will not be given a student who has not a clear financial record.

#### STUDENT LOANS AND SCHOLARSHIPS

For information concerning loans and scholarships, apply to the Committee on Student Loans and Scholarships, The George Washington University.

#### REGULATIONS

*Students in the School of Engineering are subject to, and are expected to familiarize themselves with, the general University regulations stated in the University catalogue.*

## THE BACHELOR'S DEGREE

The Bachelor's degrees are: Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering.

The degree of Bachelor of Science in Engineering may be earned with any of the following majors: Business Administration, Chemistry, Economics, Mathematics, Naval Architecture, Physics, or Statistics.

In cooperation with the Law School a six-year curriculum leading to the combined degrees of Bachelor of Science in Engineering and Bachelor of Laws is offered.

## REQUIREMENTS FOR THE DEGREES

## SCHOLARSHIP

In order to graduate, a student must have a quality-point index of at least 2.00. No student whose quality-point index is below 2.00 will be admitted to the junior year.

*Probation.*—A student must maintain a quality-point index of at least 2.00, or be placed on probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Dean's Council.

*Suspension.*—A student who has a quality-point index below 1.50 or who is placed on probation for a third term, whether successive or after an interval, will be suspended. A student suspended for poor scholarship may apply for readmission after an interval of one calendar year. He must then submit evidence to the Dean's Council that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

Quality points are computed from grades as follows: *A*, four points; *B*, three points; *C*, two points; *D*, one point; *E* and *F*, no points, for each credit hour for which the student is registered.

Scholarship is computed in terms of the quality-point index, obtained by dividing the number of quality points by the number of credit hours for which the student has registered, both based on the complete collegiate record. Courses graded *W* or *Inc.* are not considered in determining the index.

*Grades.*—*A* (90-100 per cent), excellent; *B* (80-89 per cent), good; *C* (70-79 per cent), average; *D* (60-69 per cent), passing; *E* conditioned; not passing; *F* (below 60 per cent), failing; *Inc.*, incomplete; *W*, withdrawn. *W* is followed by a letter grade indicating the quality of work the student was doing at the time of withdrawal. A course failed must be repeated with a passing grade in order to be credited. No student may repeat for credit a course in which he has received a grade above *E*.



without the permission of the Faculty of the School of Engineering. A condition may be removed within one year on terms specified by the instructor, but in no case will a final grade above *D* be given unless the course is repeated in class. A grade of "incomplete" cannot be altered after a lapse of one calendar year except by action of the Faculty.

### RESIDENCE

One year, or thirty-six credit hours, must be completed in residence. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than thirty weeks. Unless special permission is granted by the Dean to pursue work elsewhere, the work of the senior or final year must be completed in residence.

### CURRICULUM REQUIREMENTS

The satisfactory completion of one of the following curricula of 144 credit hours is required.

#### FRESHMAN YEAR (FOR ALL ENGINEERING CURRICULA)

	Credit Hours
*Chem. 11-12	General Chemistry .....
CE 2	Plane Surveying .....
Encl. 1-2	Freshman English .....
Math. 12	Plane Analytic Geometry .....
Math. 19	Differential Calculus .....
ME 1	Engineering Survey and Orientation .....
ME 3	Mechanical Drawing .....
ME 4	Descriptive Geometry .....
Phys. Ed.	Physical Education .....
#Phys. 6 and 7	General Physics .....
Total	36

#### Bachelor of Civil Engineering

#### SOPHOMORE YEAR

	Credit Hours
CE 21	Analytical Mechanics: Statics .....
CE 22	Analytical Mechanics: Dynamics .....
CE 23	Higher Surveying .....
EE 9-10	Elements of Electrical Engineering .....
Geol. 21-22	Physical and Historical Geology .....
Math. 20	Integral Calculus .....
Phys. Ed.	Physical Education .....
Phys. 8	General Physics .....
Elective	Economics 1-2 or modern language .....
Elective	.....
Total	37

The student who has credit for high school chemistry from an accredited high school may be excused from Chemistry 11 upon passing a qualitative examination given at the beginning of each semester. He will be permitted to take Chemistry 12 and 21 instead.

The student who begins physics with Physics 6 or 7 is subject to a qualifying examination. It will be given for Physics 8 or Chemistry 11 if not used for entrance requirements.



## JUNIOR YEAR

CE 25-26	Materials of Construction.....
CE 123	Strength of Materials.....
CE 136	Hydraulics.....
CE 140	Materials and Hydraulics Laboratory.....
CE 141	Graphic Statics.....
CE 142	Bridge Stresses.....
CE 164	Highway Engineering.....
CE 171	Route Surveying.....
CE 172	Railroad Engineering.....
CE 187	Contracts and Specifications.....
ME 111-12	Thermodynamics.....
Speech 1	Principles of Effective Speaking.....

Total.....

## SENIOR YEAR

CE 147-48	Structural Design.....
CE 149-50	Concrete and Masonry Construction.....
CE 151-52	Statically Indeterminate Structures.....
CE 181-82	Water Supply and Sewerage.....
CE 189-90	Civil Engineering Proseminar.....
ME 141-42	Management Problems.....
Elective	.....

Total.....

## Bachelor of Electrical Engineering

## SOPHOMORE YEAR

CE 21	Analytical Mechanics: Dynamics.....
CE 22	Analytical Mechanics: Statics.....
EE 9-10	Elements of Electrical Engineering.....
Math. 20	Integral Calculus.....
Math. 132	Differential Equations.....
ME 13-14	Mechanism.....
Phys. Ed.	Physical Education.....
Phys. 8	General Physics.....
Phys. 55	Physical Measurements.....
Elective	Economics 1-2 or modern language.....
Elective	.....

Total.....

## JUNIOR YEAR

CE 25-26	Materials of Construction.....
CE 123	Strength of Materials.....
CE 136	Hydraulics.....
EE 17-18	Direct-Current Laboratory.....

## The School of Engineering

19

EE 101	Electric Current.....	3
EE 102	Alternating Current Machinery.....	3
EE 111-12	Electrical Measurements.....	4
ME 111-12	Thermodynamics.....	6
Phys. 112	Electricity.....	3
Speech 1	Principles of Effective Speaking.....	3
	Total.....	36

### SENIOR YEAR

CE 140	Materials and Hydraulics Laboratory.....	Credit Hours
EE 103	Alternating Current Machinery.....	2
EE 133-34	Alternating Current Laboratory.....	3
EE 189-90	Principles in Electrical Engineering.....	4
ME 115	Mechanical Laboratory.....	2
Elective	Business Administration or Economics.....	6
Choice	(1) Communications Option, or (2) Power Option.....	15
	Total.....	34

### Communications Option

EE 141-42	Communication Engineering.....	Credit Hours
EE 143-44	High-Frequency Communications.....	6
Elective	.....	6
	.....	3

### Power Option

EE 125-26	Electric Power Transmission.....	4
EE 136	Hydro-Electric Engineering.....	2
EE 137	Electric Traction.....	2
EE 140	Electric Design.....	3
Elective	.....	4

## Bachelor of Mechanical Engineering

### SOPHOMORE YEAR

CE 21	Analytical Mechanics: Statics.....	Credit Hours
CE 22	Analytical Mechanics: Dynamics.....	2
EE 9-10	Elements of Electrical Engineering.....	3
Math. 20	Integral Calculus.....	6
ME 7	Machine Drawing.....	3
ME 8	Mechanism Drawing.....	2
ME 13-14	Mechanism.....	2
Phys. Ed.	Physical Education.....	4
Phys. 8	General Physics.....	2
Phys. 55	Physical Measurements.....	2
Elective	Economics 1-2 or modern language.....	2
Elective	Mathematics.....	6
	Total.....	37

## JUNIOR YEAR

CE 25-26	Materials of Construction.....	Credit Hours
CE 123	Strength of Materials.....	
CE 136	Hydraulics.....	
CE 140	Materials and Hydraulics Laboratory.....	
CE 141	Graphic Statics.....	
EE 13-14	Direct- and Alternating-Current.....	
ME 111-12	Thermodynamics.....	
ME 141-42	Management Problems.....	
Speech 1	Principles of Effective Speaking.....	
Elective	.....	
Total.....		35

## SENIOR YEAR

ME 115-16	Mechanical Laboratory.....	Credit Hours
ME 126	Methods of Manufacture.....	
ME 127-28	Machine Design.....	
ME 129-32	Power Plants.....	
ME 131-32	Heating, Ventilating, Air Conditioning, and Refrigeration.....	
ME 133	Combustion Engines.....	
ME 139	Fluid Dynamics.....	
ME 140	Dynamic of Machinery.....	
ME 189-90	Proseminar in Mechanical Engineering.....	
Elective	.....	
Total.....		

## Bachelor of Science in Engineering

## SOPHOMORE YEAR

CE 21	Analytical Mechanics: Statics.....	Credit Hours
CE 22	Analytical Mechanics: Dynamics.....	
EE 9-10	Elements of Electrical Engineering.....	
Math. 20	Integral Calculus.....	
ME 13-14	Mechanics.....	
Phys. Ed.	Physical Education.....	
Phys. 8	General Physics.....	
Elective	Business Administration or Speech.....	
Elective	Economics 1-2 or modern language.....	
Elective	Mathematics.....	
Elective	Physics.....	
Total.....		

## JUNIOR YEAR

CE 25-26	Materials of Construction.....	Credit Hours
CE 123	Strength of Materials.....	

## The School of Engineering

21

CE 136	Hydraulics .....	3
CE 140	Materials and Hydraulics Laboratory .....	2
EE 13-14	Direct and Alternating-Current Laboratory .....	4
ME 111-12	Thermodynamics .....	6
Elective	.....	14
Total .....		30

### SENIOR YEAR

Bus. Adm. 101-2	Business Organization and Management .....	6
Geol. 21-22	Physical and Historical Geology .....	6
ME 141-42	Management Problems .....	4
Elective	.....	17
Total .....		33

The purpose of the Bachelor of Science in Engineering curriculum is to allow a student who has demonstrated his ability to do better than passing work to center his attention upon a group of subjects in which he has special interest. Options may be elected in Business Administration, Chemistry, Economics, Mathematics, Naval Architecture, Physics, or Statistics. The student's choice of subjects for the entire junior and senior years must be submitted to the Dean's Council for approval *before* the beginning of the junior year. The student must comply with such requirements as to subjects, schedules, and scholarship as the department concerned may prescribe.

Curricula recommended by the several departments in which options may be elected are available in the Office of the Dean of the School of Engineering for the guidance of students in arranging their programs. Variations from these curricula may be made to satisfy the needs of the exceptional individual student. However, any variation must be approved in writing by the major department and the Dean's Council.

## COMBINED BACHELOR OF SCIENCE IN ENGINEERING AND BACHELOR OF LAWS DEGREES

For those students who desire to enter the branches of the legal profession in which a background in engineering is necessary a six-year curriculum is offered, leading to the combined degrees of Bachelor of Science in Engineering and Bachelor of Laws. A candidate for the combined degrees must conform to the residence and scholarship requirements of the School of Engineering throughout the period of preparation for the degree in engineering. His scholarship level for the junior and senior years must be acceptable to both the School of Engineering and the Law



School. During the junior and senior years he must complete: (1) the required courses in engineering, (2) the 28 credit hours of law courses required in the first year of the Law School, and (3) such electives as he needs to satisfy the 144 credit-hour requirement for the degree in engineering. Upon the satisfactory completion of the senior year, the degree of Bachelor of Science in Engineering will be conferred. The student will then continue his studies in the Law School; upon the satisfactory completion of which the degree of Bachelor of Laws will be conferred.

For detailed information the student should consult the deans of the School of Engineering and the Law School.

### THE PROFESSIONAL DEGREES

The professional degree of Civil Engineer, Electrical Engineer, or Mechanical Engineer may be conferred upon a graduate of the School of Engineering who has demonstrated his professional ability.

### REQUIREMENTS FOR THE DEGREES

1. Application may not be made sooner than three years after graduation, and then only if the candidate has had responsible charge of engineering work.

2. A detailed statement of the candidate's experience, references, the degree sought, and the title of the thesis must be filed with the Dean eight months before the Commencement at which the degree is to be conferred.

Detailed information concerning the preparation of the thesis may be obtained from the Office of the Dean.

## COURSES OF INSTRUCTION

On the following pages, under the alphabetically arranged names of the departments of instruction, are listed the courses of instruction offered in the School of Engineering in the summer of 1943 and in the academic year 1943-44. Also listed are courses offered by other schools and colleges of the University, but required or accepted as electives for the degrees in engineering. The courses as here listed are subject to some slight change. The University reserves the right to withdraw any course announced.

### EXPLANATION OF COURSE NUMBERS

The number which precedes the name of the course indicates the term in which that course is offered.

*Fall Term.*—An odd number preceding the name of the course indicates that the course is offered in the fall term.

The letter "x" following an *even* course number (e.g., 22x) indicates that the course normally offered in the winter term (and, in engineering, also the summer term) is given in the 1943-44 fall term.

*Winter Term.*—An even number preceding the name of the course indicates that the course is offered in the winter term.

The letter "x" following an odd course number (e.g., 21x) indicates that the course normally offered in the fall term is given in the 1943 winter term (and, in engineering, also in the 1943 summer term).

*1943 Summer Term.*—In the School of Engineering, unless otherwise indicated, even numbered courses will be offered in the 1943 summer term.

Required and elective courses from other departments offered in the summer term are so indicated in the descriptions of the courses.

### INDICATION OF THE AMOUNT OF CREDIT

The number of credit hours given for the satisfactory completion of a course is in most cases indicated in parentheses after the name of the course. Thus, a year course giving three hours of credit each term is marked (3-3), and a term course giving three hours of credit is marked (3). A credit hour usually consists of the completion of one fifty-minute period of class work or of one laboratory period a week for one term.

A dagger (†) preceding the number of a year course indicates that the course may not be entered in the second term and that credit will not be given until the work of both terms has been completed.

## CIVIL ENGINEERING

- \*Frank Artemas Hitchcock, M.S. in C.E., C.E., *Professor of Civil Engineering; Director of War Training Program*  
 Joseph Young Dreisonstok, Comdr., U. S. Navy, B.S., *Professorial Lecturer in Civil Engineering*  
 Charles Edward Cook, B.S. in E.E., B.S. in C.E., C.E., *Associate Professor of Civil Engineering, Acting Executive Officer*  
 George Strollo, B.S. in C.E., M.C.E., *Assistant Professor of Civil Engineering*  
 Carl Hugo Walther, B.E., M.C.E., *Assistant Professor of Civil Engineering*  
 William Hayward, B.S. in C.E., *Associate in Civil Engineering*  
 William Malkin, B.S., *Associate in Civil Engineering*  
 Earl Hildreth Lund, B.S. in C.E., C.E., LL.B., *Associate in Civil Engineering*  
 Louis Benjamin Pelzman, Lt. Comdr., U. S. Navy, B.S., *Associate in Civil Engineering*

Minimum requirements for the major.—See pages 17 and 18.  
 Summer term 1943.—All even-numbered courses will be offered.

### FIRST GROUP

- 2 *Plane Surveying* (3) Cook, Hayward  
 Principles, methods, and instruments used in surveying; with field work. Prerequisite: Trigonometry. Surveying fee, \$6. Section A: Tues. and Thurs., 12:10 P.M.; section B: Tues. and Thurs., 7:10 P.M. Field work—Sat., 9:10 A.M. and 1:40 P.M.
- 15 *Navigation* (3) Dreisonstok, Pelzman  
 Principles, methods, and instruments used in surface and aerial navigation. Charts, piloting, dead-reckoning, nautical astronomy, position determination. Prerequisite: Trigonometry. Mon., Wed., and Fri. 6:10 P.M.  
 Also offered summer term 1943.
- 17 *Meteorology for Navigation* (2) Malkin  
 Principles and elements of atmospheric behavior; weather forecasting, data, and maps. Prerequisite: Physics 6 and 7.
- 21 *Analytical Mechanics: Statics* (2) Strollo  
 Composition and resolution of forces; axial stresses; centroids; friction. Prerequisite: Physics 6; prerequisite or concurrent registration: Mathematics 20. Section A: Tues. and Thurs., 11:10 A.M.; section B: Tues. and Thurs., 7:10 P.M.

\* On war leave.

22 *Analytical Mechanics: Dynamics* (3) Strollo  
Kinematics of a particle; kinetics of a body in translation, rotation, and plane motion; work and energy; impulse and momentum. Prerequisite: Civil Engineering 21. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.

23 *Higher Surveying* (4) Cook, Hayward  
Elements of geodesy, triangulation, topography, hydrography, and precise and trigonometric leveling, with field work. Prerequisite: Civil Engineering 2. Surveying fee, \$6. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M. Field work—Sat., 9:10 A.M. and 1:40 P.M.

25-26 *Materials of Construction* (2-2) Walther  
Nonmetallic materials, with emphasis on cement; metallic materials, with emphasis on iron and steel. Prerequisite or concurrent registration: Chemistry 12. Section A: Tues. and Thurs., 9:10 A.M.; section B: Tues. and Thurs., 6:10 P.M.

#### SECOND GROUP

123 *Strength of Materials* (3) Strollo  
Tension, compression, shear, and torsion; deflection; combined and working stresses. Prerequisite: Civil Engineering 22. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.

136 *Hydraulics* (3) Strollo  
Hydrostatics; flow through pipes and open channels; laminar and turbulent flow. Prerequisite: Civil Engineering 22. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.

140 *Materials and Hydraulics Laboratory* (2) Strollo  
Determination of the properties of materials by mechanical tests, and a study of the flow of fluids. Prerequisite: Civil Engineering 123; prerequisite or concurrent registration: Civil Engineering 26 and 119. Laboratory fee, \$6. Section A: Tues. and Thurs., 1:40 P.M.; section B: Tues. and Thurs., 8:10 P.M.

141 *Graphic Statics* (3) Walther  
Fundamental principles; analyses of beams; determination of stresses in roof trusses and framed bents. Prerequisite or concurrent registration: Civil Engineering 123. Drafting-room fee, \$1. Section A: Tues. and Thurs., 11:10 A.M. and Thurs., 1:40 P.M.; section B: Tues. and Thurs., 7:10 P.M. and Tues., 8:10 P.M.

142 *Bridge Stresses* (3) Walther  
Determination of stresses in modern types of bridge trusses. Prerequisite: Civil Engineering 141. Drafting-room fee, \$1. Section A: Tues. and Thurs., 11:10 A.M., and Thurs., 1:40 P.M.; section B: Tues. and Thurs., 7:10 P.M., and Tues., 8:10 P.M.

147-48 *Structural Design* (2-2) Walther  
Computations and drawings for the design of steel structures. Prerequisite: Civil Engineering 142. Drafting-room fee, \$3 a term. Tues. and Thurs., 8:10 P.M.



- 149-50 *Concrete and Masonry Construction* (3-3) Strollo  
Plain concrete; general properties and theory of reinforced concrete; foundations and retaining walls. Prerequisite: Civil Engineering 25 and 123. Civil Engineering 149, laboratory fee, \$6; Civil Engineering 150, drafting-room fee, \$1. Tues. and Thurs., 6:10 P.M., and Mon., 8:10 P.M.
- 151-52 *Statically Indeterminate Structures* (2-2) Walther  
A study of such structures as continuous spans, rigid frames, and arches by methods of work, slope deflection, and moment distribution. Prerequisite: Civil Engineering 142. Mon. and Fri., 6:10 P.M.
- 164 *Highway Engineering* (3) Cook  
Highway economics, location, construction, and maintenance. Prerequisite or concurrent registration. Civil Engineering 25 and 171. Mon., Wed., and Fri., 6:10 P.M.
- 171 *Route Surveying* (3) Cook  
Curves and earthwork, and methods of location as used on railroads and highways; field work; complete highway location. Prerequisite: Civil Engineering 2. Surveying fee, \$6. Tues. and Thurs., 6:10 P.M. Field work—Sat., 1:40 P.M.
- 172 *Railroad Engineering* (3) Cook  
Track construction and requirements, rolling stock, cost and operation of railroads, with field work. Prerequisite: Civil Engineering 17. Surveying fee, \$6. Tues. and Thurs., 6:10 P.M. Field work—Sat., 1:40 P.M.
- 181-82 *Water Supply and Sewerage* (3-3) Cook  
Collection, storage, purification, and distribution of water; sewerage systems and treatment of sewage. Prerequisite: Civil Engineering 17. Chemistry 12. Mon., Wed., and Fri., 7:10 P.M.
- 187 *Contracts and Specifications* (2) Lamm  
Contract principles; preparation of contracts; specifications and methods of studying them; examples of contracts and specifications; practice in analyzing and writing specifications. Tues. and Thurs., 7:10 P.M.
- 189-90 *Civil Engineering Proseminar* (1-1) Mason  
Wed., 8:10 P.M.

## ELECTRICAL ENGINEERING

- \*Norman Bruce Ames, M.S., E.E., LL.B., *Professor of Electrical Engineering*  
 Forest Klaire Harris, B.S. in E.E., M.S., Ph.D., *Professorial Lecturer in Electrical Engineering*  
 Newbern Smith, Ph.D., *Professorial Lecturer in Electrical Engineering*  
 Milton Kent Akers, B.S., E.E., *Associate Professor of Electrical Engineering, Acting Executive Officer*  
 \*Alfred Ennis, M.S., E.E., D.Eng., *Assistant Professor of Electrical Engineering*  
 Edward Iannelli, B.E.E., *Lecturer in Electrical Engineering*  
 Carl Harrison Smith, Jr., B.S. in E.E., *Associate in Electrical Engineering*  
 George Edward Sangster, B.E.E., *Associate in Electrical Engineering*

*Minimum requirements for the major.*—See pages 17, 18, and 19.  
*Summer term 1943.*—All even-numbered courses will be offered, except Electrical Engineering 112.

### FIRST GROUP

- 9-10 *Elements of Electrical Engineering (3-3)* Akers  
 Electrical Engineering 9: magnetic and electric circuits, and direct-current instruments and machines; Electrical Engineering 10: alternating-current circuits, instruments, and machines. Prerequisite: Physics 7. Prerequisite or concurrent registration: Mathematics 20. Section A: Mon., Wed., and Fri., 12:10 P.M.; section B: Mon., Wed., and Fri., 7:10 P.M.
- 13-14 *Direct- and Alternating-Current Laboratory (2-2)* Sangster  
 For the student not majoring in electrical engineering. Experiments in direct and alternating currents and direct- and alternating-current machinery. Prerequisite: Electrical Engineering 10. Laboratory fee, \$6 a term. Section A: Mon., 1:40 P.M.; section B: Fri., 1:40 P.M.; section C: Mon., 8:10 P.M.; section D: Thurs., 8:10 P.M.; section E: Fri., 8:10 P.M.
- 17-18 *Direct-Current Laboratory (2-2)* Sangster  
 For the student majoring in electrical engineering. A course in measurements and direct-current dynamo laboratory. Prerequisite: Electrical Engineering 9-10. Laboratory fee, \$6 a term. Section A: Mon., 1:40 P.M.; section B: Fri., 1:40 P.M.; section C: Mon., 8:10 P.M.; section D: Thurs., 8:10 P.M.; section E: Fri., 8:10 P.M.

\* On war leave 1943-44.

## SECOND GROUP

- 101 *Electric Circuits* (3) Akers  
Alternating-current-circuit theory. Extensive consideration is given to harmonic analysis and to the study of harmonics in both single-phase and polyphase circuits. Prerequisite: Electrical Engineering 10. Mon., Wed., and Fri., 6:10 P.M.
- 102 *Alternating-Current Machinery* (3) Ames  
Synchronous generators and motors, transformers, and mercury arc rectifiers. Prerequisite: Electrical Engineering 101. Mon., Wed., and Fri., 6:10 P.M.
- 103 *Alternating-Current Machinery* (3) Ames  
A continuation of Electrical Engineering 102. Converters, induction motors, and polyphase motors, and elementary transmission and distribution of alternating currents. Prerequisite: Electrical Engineering 101. Mon., Wed., and Fri., 6:10 P.M.
- 111-12 *Electrical Measurements* (2-2) Harris  
Theory of direct-current and alternating-current instruments, bridges, and meters. Prerequisite or concurrent registration: Electrical Engineering 101. Tues. and Thurs., 7:10 P.M.  
Electrical Engineering 112 not offered 1943 summer term.
- 125-26 *Principles of Electric Power Transmission* (2-2) Akers  
Mechanical and electrical characteristics of transmission lines; approximate and rigorous solutions by means of hyperbolic functions; steady-state and elementary transient considerations; the more important phases of distribution of electrical energy. Prerequisite: Electrical Engineering 101. Tues. and Thurs., 7:10 P.M.
- 133-34 *Alternating-Current Laboratory* (2-2) Samuels  
A continuation of Electrical Engineering 17-18, with experiments on alternating-current circuits, instruments, and machinery. Prerequisite: Electrical Engineering 18 and 103. Laboratory fee, \$6 a term. Section A: Mon., 1:40 P.M.; section B: Fri., 1:40 P.M.; section C: Mon., 8:10 P.M.; section D: Thurs., 8:10 P.M.; section E: Fri., 8:10 P.M.
- 136 *Hydro-Electric Engineering* (2) Akers  
Present-day theory and practice in hydro-electric engineering. Prerequisite: Electrical Engineering 10; Civil Engineering 136. Tues. and Thurs., 6:10 P.M.
- 137 *Electric Traction* (2) Akers  
Theory and practice of modern direct- and alternating-current railways. Prerequisite: Electrical Engineering 10. Tues. and Thurs., 6:10 P.M.
- 138 *Industrial Electrical Power Applications* (2) Akers  
The characteristics of the various types of electrical motors and of power appliances and the principles governing their applications in industry. Prerequisite: Electrical Engineering 10 and junior standing. Tues. and Thurs., 6:10 P.M.

**140 *Electrical Design* (3)**

Principles of design, with reference to materials of construction and electrical equipment. Practical exercises are assigned in connection with classroom work. Prerequisite: Electrical Engineering 1-3. Drafting-room fee, \$1. Mon. and Fri., 6-10 P.M. and Tues., 8-10 P.M.

Akers

**141-44 *Communication Engineering* (3-3)**

Principles of communication circuits and measurements. Particular attention is given to low and intermediate-frequency phenomena. Prerequisite: Electrical Engineering 1-1, Physics 132. Laboratory fee, \$6 a term. Lecture—Tues. and Thurs., 6-10 P.M. Laboratory—Tues. or Thurs., 8-10 P.M.

Iannelli, C. H. Smith

**143-44 *High-Frequency Communication* (3-3)**

Principles of high-frequency communication circuits and of high-frequency measurement. Prerequisite: Electrical Engineering 1-1; Physics 132. Lecture—Tues. and Thurs., 6-10 to 7:25 P.M.

N. Smith

**189-90 *Proseminar in Electrical Engineering* (1-1)**

Prerequisite: Electrical Engineering 1-3. Wed., 6-10 P.M.

Akers



## MECHANICAL ENGINEERING

- \*Arthur Frederick Johnson, M.E., Ph.D., *Professor of Mechanical Engineering*  
 Frederick Morris Feiker, B.S. in E.E., D.Eng., *Professor of Engineering Administration*  
 Benjamin Carpenter Cruickshanks, B.S. in M.E., *Professor of Mechanical Engineering, Acting Executive Officer*  
 Garbis Keulegan, Ph.D., *Professorial Lecturer in Mechanical Engineering*  
 Robert Gay Trumbull, B.S. in C.E., *Associate Professor of Mechanical Engineering*  
 \*Howard Henry Koster, M.S. in M.E., *Assistant Professor of Mechanical Engineering*  
 Martin Alexander Mason, B.S. in Eng., Dr. Ing., *Lecturer in Mechanical Engineering*  
 Harry Joseph Keegan, B.S. in M.E., *Lecturer in Mechanical Engineering*  
 Rudolph Michel, B.S. in M.E., M.S., *Lecturer on Naval Architecture*  
 Paul Guthrie Tomalin, *Lecturer on Naval Architecture*  
 John Brewster Willis, B.S. in M.E., *Associate on Naval Architecture*

*Minimum requirements for the major.*—See pages 17, 19, and 20.

*Summer term 1943.*—All even-numbered courses will be offered except ME 10 and 126.

### FIRST GROUP

- 1 *Engineering Survey and Orientation* (1) Cruickshanks and Sta  
 Open to freshmen only. Section A: Mon., 12:40 P.M.; section B: Tues.  
 7:10 P.M.
- 3 *Mechanical Drawing* (2) Trumbull  
 Drafting-room fee, \$3. Section A: Mon. and Fri., 1:40 to 4:30 P.M.  
 section B: Mon. and Fri., 8:10 to 11 P.M.  
 Also offered summer term 1943.
- 4 *Descriptive Geometry* (2) Trumbull  
 Drafting-room fee, \$3. Section A: Mon. and Fri., 1:40 to 4:30 P.M.  
 section B: Mon. and Fri., 8:10 to 11:00 P.M.
- 5 *Introductory Naval Architecture* (3) Willis  
 Nomenclature, functions, and arrangement of hull structure, equipment, and machinery for merchant vessels. Lectures supplemented by visits to shipyards. Mon., Wed., and Fri., 6:10 P.M.

\* On war leave 1943-44

7 *Machine Drafting* (2) Trumbull  
Prerequisite: Mechanical Engineering 3 and 4. Drafting-room fee, \$3.  
Section A: Mon. and Fri., 1:45 to 4:30 P.M.; section B: Mon. and Fri.,  
8:10 to 11:00 P.M.

8 *Mechanism Drafting* (2) Trumbull  
Prerequisite: Mechanical Engineering 3, 4, and 13. Prerequisite or  
concurrent registration: Mechanical Engineering 14. Drafting-room  
fee, \$3. Section A: Mon. and Fri., 1:45 to 4:30 P.M.; section B: Mon.  
and Fri., 8:10 to 11:00 P.M.

9-10 *Ship Drafting* (2-2)  
Fairing of lines; displacement, stability curves, midship section, general  
arrangements and structural detail plans, machinery details. Prerequi-  
site or concurrent registration: Mechanical Engineering 15. Drafting-  
room fee, \$3 a term. Tues. and Thurs., 8:10 to 11:00 P.M.  
Mechanical Engineering 1 not offered 1943 summer term.

13-14 *Mechanism* (2-2) Trumbull  
Prerequisite: Mathematics 12. Prerequisite or concurrent registration:  
Mathematics 19. Section A: Tues. and Thurs., 12:10 P.M.; section B:  
Tues. and Thurs., 6:10 P.M.

15-16 *Elementary Ship Calculations* (2-2) Johnson, Willis  
Form characteristics, detailed weights, displacement, transverse and  
longitudinal equilibrium, launching. Prerequisite: Mechanical Engi-  
neering 5. Tues. and Thurs., 6:10 P.M.

## SECOND GROUP

101-2 *Advanced Ship Calculations* (2-2) Tomalin  
Stabilizing model, basin practice, powering, steering, launching, hull  
strength, floodability, vibrations. Prerequisite: Mechanical Engineer-  
ing 16. Tues. and Thurs., 7:10 P.M.

103-4 *Ship Design* (2-2) Johnson  
Prerequisite: Mechanical Engineering 10, 16; prerequisite or concu-  
rent registration: Mechanical Engineering 117. Drafting-room fee, \$3  
a term. Tues. and Thurs., 8:10 to 11:00 P.M.

111-12 *Thermodynamics* (3-3) Cruickshanks  
With introductory study of laws of heat transmission. Prerequisite  
or concurrent registration: Mathematics 20. Section A: Mon., Wed.,  
and Fri., 9:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.

115-16 *Mechanical Laboratory* (2-2) Cruickshanks  
Calibration of instruments; calorimetry; testing of prime movers,  
auxiliaries, and combustion engines. Eight-hour boiler test required.  
Prerequisite: Mechanical Engineering 13-14 and 111-12. Laboratory  
fee, \$6 a term. Section A: Mon. and Fri., 1:10 P.M.; section B: Mon.  
and Fri., 8:10 P.M.

117-18 *Marine Engines and Auxiliaries* (2-2) Johnson  
Details, arrangements and performance of steam unitflow, steam turbine,  
and Diesel propelling plants. Prerequisite or concurrent registration:  
Mechanical Engineering 5, 13-14, and 111-12. Tues. and Thurs.,  
7:10 P.M.

- 126 *Methods of Manufacture* (2) Kester  
Fixtures, gaging, tools, costs. Prerequisite: Mechanical Engineering 112 and 141; Civil Engineering 20. Tues. and Thurs., 7:10 P.M. (Not offered 1943 summer term.)
- 127-28 *Machine Design* (2-2) Keegan  
With stress-analysis lectures. Prerequisite: Mechanical Engineering 112 and 126; Civil Engineering 25, 123, 136, and 141. Drafting fee, \$5 a term. Tues. and Thurs., 8:10 to 11:00 P.M.
- 129-30 *Power Plants* (3-3) Cruickshank  
Study of design, layout, installation, and operation of power plants and equipment. Prerequisite: Mechanical Engineering 112. Mon., Wed., and Fri., 6:10 P.M.
- 131-32 *Heating, Ventilating, Air Conditioning, and Refrigeration* (2-2) Kester  
Prerequisite: Mechanical Engineering 112. Tues. and Thurs., 6:10 P.M. (Not offered fall and winter terms 1943-44.)
- 133 *Combustion Engines* (2) Kester  
Prerequisite: Mechanical Engineering 112; Civil Engineering 123 and 136; Electrical Engineering 10. Section A: Tues. and Thurs., 11:10 A.M.; section B: Tues. and Thurs., 7:10 P.M.
- 139 *Fluid Dynamics* (3) Keulegan  
The theories of hydro- and aero-mechanics as influenced by density, viscosity, and turbulence. Prerequisite: Mechanical Engineering 112; Civil Engineering 140. Mon., Wed., and Fri., 7:10 P.M.
- 140 *Dynamics of Machinery* (3) Michels  
Inertia effects, balancing, vibration phenomena. Prerequisite: Mechanical Engineering 115; Civil Engineering 123 and 136. Mon., Wed., and Fri., 7:10 P.M.
- 141-42 *Management Problems* (2-2) Feikert  
The handling and training of men. Prerequisite: Economics 1-2. Tues. and Thurs., 7:10 P.M.
- 145-46 *Management Controls* (2-2)  
Prerequisite: Economics 1-2; Business Administration 101-2. This to be arranged.
- 147 *Industrial Labor Relations* (2)  
Prerequisite: Mechanical Engineering 141-42. Tues. and Thurs., 6:10 P.M.
- 189-90 *Proseminar in Mechanical Engineering* (1-1) Mason  
Wed., 8:10 P.M.

## REQUIRED AND ELECTIVE COURSES FROM OTHER DEPARTMENTS

On the following pages appears a partial list of courses in other departments of instruction which are closely related to engineering. Some of these courses are prescribed in the several curricula of the School of Engineering; all are recommended as suitable elective subjects for engineering students. Information on the times and places of meeting of courses may be found in the class schedule which will be available at the time of registration.

### BUSINESS ADMINISTRATION

#### 51-52 *Principles of Accounting* (3-3)

Rules of debit and credit, underlying principles of accounting records, simple partnership and corporation problems, and the preparation of financial statements.

Business Administration 51x—same as Business Administration 51, but offered winter term.

Business Administration 52x—same as Business Administration 52, but offered fall term. Prerequisite: Business Administration 51, or the approval of the instructor.

Business Administration 51-52 offered summer term 1943.

#### 101-2 *Business Organization and Management* (3-3)

Promotion of an enterprise and selection of a form of organization; departmentizing and administration.

Also offered summer term 1943.

#### 115x *Business Finance* (3)

Basic principles involved in the financial policies of business enterprises. Prerequisite: Business Administration 51-52; Economics 1-2.

Also offered summer term 1943.

#### 127 *Business Forecasting* (3)

Forces and factors underlying fluctuations of business activity and methods of forecasting such fluctuations. Prerequisites: Economics 1-2.

#### 128 *Principles of Insurance* (3)

A general course in underlying principles of property, life, marine, and casualty insurance, and the function of insurance in the economic life of a business or individual. Prerequisite: Economics 1-2.

#### 145 *Cost Accounting* (3)

Job order and process systems of cost findings; interrelation of the cost records and the general accounts; standard costs; distribution costs. Prerequisite: Business Administration 51-52.



155 *Analysis of Financial Statements* (3)

Technique of analyzing financial statements for the guidance of operating executives, directors, stockholders, and creditors; valuation of balance sheet items; determination and interpretation of ratios. Prerequisite: Business Administration 151.

Business Administration 155x—same as Business Administration 155 but offered winter term.

171 *Principles of Marketing* (3)

A survey of marketing, giving particular attention to consumption, retailing, wholesaling, and sales management; the entire marketing structure and its relation to the total economy. Prerequisite: Economics 1-2.

181 *Public Utilities* (3)

Public utility characteristics, organization, management, financing combinations, and accounting; regulation, valuation, and rate-making are stressed. Prerequisite: Economics 1-2.

Also offered summer term 1943.

185 *Principles of Railroad Transportation* (3)

Railroad history, organization, regulations, rate-making theory and practice, accounting, securities, and consolidation. Work of Interstate Commerce Commission stressed. Prerequisite: Economics 1-2.

186 *Principles of Motor, Air, and Water Transportation* (3)

History, organization, economics, regulations, and rates of motor, air, and water carriers; coordination of transportation. Prerequisite: Economics 1-2.

## CHEMISTRY

11-12 *General Chemistry*† (4-4)

Material fee,\* \$9 a term.

Chemistry 11x—same as Chemistry 11, but offered winter term.

Chemistry 12x—same as Chemistry 12, but offered fall term.

Chemistry 11-12 offered summer term 1943.

21 *Qualitative Inorganic Analysis* (4)

Theoretical and practical study of methods of separating and identifying the more common cations and anions. Prerequisite: Chemistry 12.

Material fee,\* \$9 a term.

Chemistry 21x—same as Chemistry 21, but offered winter term.

Also offered summer term 1943.

22 *Quantitative Inorganic Analysis* (4)

The principles of gravimetric and volumetric analysis. Prerequisite: Chemistry 21. Material fee,\* \$12 a term.

Also offered summer term 1943.

\* A breakage deposit of \$10, payable in advance, is required of the student registered in one or more chemistry courses requiring a material fee.

† Chemistry 11 and 12 constitute the minimum course in chemistry. Engineering students who have credit for high school chemistry from an accredited high school may be excused from Chemistry 11 upon passing a qualifying examination given at the beginning of each term. They will then be permitted to take Chemistry 12 and 21 instead.

- †111-12 *Physical Chemistry* (4-4)  
Introduction to theoretical chemistry. Prerequisite: Chemistry 22; Mathematics 20; Physics 8. Material fee,\* \$9 a term.
- 122 *Advanced Quantitative Analysis* (4)  
Application of the fundamental principles of analysis to more difficult separations and determinations. Prerequisite: Chemistry 22. Material fee,\* \$12.  
Chemistry 122x—same as Chemistry 122, but offered fall term.
- †131-32 *Inorganic Chemistry* (2-2)  
Chemistry and its theories from the standpoint of the periodic table, with major emphasis on the more common elements. Prerequisite: Chemistry 152. Prerequisite or concurrent registration: Chemistry 111-12.
- 135-36 *Inorganic Chemistry: Preparations* (2-2)  
Application of the technique of inorganic chemistry to the preparation and purification of a selected list of substances. Prerequisite: Chemistry 152. Prerequisite or concurrent registration: Chemistry 111-12. Material fee,\* \$12 a term.
- †151-52 *Organic Chemistry* (4-4)  
151: Chemistry of the acyclic carbon compounds. Prerequisite: Chemistry 12; however, students are strongly advised to take Chemistry 21 and 22 before entering this course. Material fee,\* \$9. Section A: 152: chemistry of the cyclic carbon compounds. Prerequisite: Chemistry 151. Material fee,\* \$12.  
Also offered summer term 1943.
- 155 *Organic Chemistry: Preparations* (2)  
The synthesis of carbon compounds, and a study of the fundamental techniques of purification. Prerequisite: Chemistry 22 and 152. Material fee,\* \$12.  
Chemistry 155x—same as Chemistry 155, but offered winter term.  
Also offered summer term 1943.
- 191 *History of Chemistry* (2)  
The development of chemistry, and the biographies of eminent contributors to the science. Prerequisite: Chemistry 152. Prerequisite or concurrent registration: Chemistry 22.  
Chemistry 191x—same as Chemistry 191, but offered winter term.  
Also offered summer term 1943.
- 251-52 *Advanced Organic Chemistry* (3-3)  
An introduction to the literature of organic chemistry; the study of the syntheses, reactions, and properties of carbon compounds; the fundamental theories of organic chemistry. Prerequisite: Chemistry 152; prerequisite or concurrent registration: Chemistry 111-12. Open to the senior student with the permission of the instructor.  
Chemistry 252x—same as Chemistry 252, but offered fall term.  
Chemistry 251 also offered summer term 1943.

\* A breakage deposit of \$10, payable in advance, is required of the student registered for one or more chemistry courses requiring a material fee.

## ECONOMICS

1-2 *Introductory Economics\** (3-3)

Survey of the major economic institutions and economic problems in contemporary society.

Economics 1x—same as Economics 1, but offered winter term.

Economics 2x—same as Economics 2, but offered fall term.

Economics 1-2 offered summer term 1943.

121-22 *Money and Banking* (3-3)

Money, bank credit, and prices; commercial and investment banking; banking systems; historical development of banking; government and banking; functions of money and banking.

141 *Labor Economics* (3)

Labor problems: wages, hours, and working conditions; growth of labor organizations; types of unions; union tactics and programs.

142 *Government and Labor Problems* (3)

Labor legislation; labor and the courts; federal regulation of capital-labor relations; the work of federal labor boards. Prerequisite: Economics 141.

161-62 *Public Finance and Taxation* (3-3)

General survey of government expenditures, sources and methods of taxation, economic effects of expenditures and taxes, and of government debt policies.

169 *Economics of War* (3)

The problems of production, price control, and finance in the defense preparation and war economies; post-war problems.

170 *Economic Geography* (3)

The economics of natural resources: raw materials; staple crops; agricultural location of industry.

Also offered summer term 1943.

## ENGLISH

1 *Freshman English†* (3)

English 1x—same as English 1, but offered winter term.

English 1 also offered summer term 1943.

2 *Freshman English* (3)

English 2x—same as English 2, but offered fall term.

English 2 also offered summer term 1943.

\* Economics 1-2 is prerequisite to all other courses in economics.

† Special placement examinations, required of all entering freshmen, will be conducted by the English Department. These examinations will test the student's proficiency in spelling, grammar, punctuation, and sentence structure; his vocabulary; and through an impromptu theme, his ability to present his ideas in logical sequence with clarity and effectiveness. On the basis of these tests students will be classified as follows: (1) especially superior students who, by the unanimous decision of the examiners, are regarded as possessing the equivalent of English 1-2 and who may be relieved of the curriculum requirement of the course; and (2) all other students, who will be required to take English 1-2.

9 *Sophomore Composition* (3)

A study of the contemporary essay, with weekly exercises in expository writing. Prerequisite: English 1 and 2.

MATHEMATICS

11 *Introductory College Mathematics\** (3)

Rectangular coordinates; trigonometric functions; trigonometric identities; exponents and logarithms; solution of triangles; linear equations; determinants of the third order; quadratic equations; the factor theorem and its use in equations of higher degree; mathematical induction and the binomial theorem; permutations and combinations; the complex number system. Prerequisite: one year each of high school algebra and high school geometry.

Mathematics 11x—same as Mathematics 11, but offered winter term.  
Mathematics 11 also offered summer term 1943.

12 *Plane Analytic Geometry* (3)

Prerequisite: Mathematics 11, or two years of high school algebra, one year of high school geometry, and one-half year of high school trigonometry.

Mathematics 12x—same as Mathematics 12, but offered fall term.  
Mathematics 12 also offered summer term 1943.

19 *Differential Calculus* (3)

Prerequisite: Mathematics 12.

Mathematics 19x—same as Mathematics 19, but offered winter term.  
Mathematics 19 also offered summer term 1943.

20 *Integral Calculus†* (3)

Prerequisite: Mathematics 19.

Mathematics 20x—same as Mathematics 20, but offered winter term.  
Mathematics 20 also offered summer term 1943.

133 *Differential Equations* (3)

Mathematics 132x—same as Mathematics 132, but offered winter term.

Mathematics 132 also offered summer term 1943.

134 *Introduction to Boundary-Value Problems* (3)

Prerequisite: Mathematics 132.

138 *Advanced Calculus* (3)

Also offered summer term 1943.

171 *Vector Analysis* (3)

\* Mathematics 11 (Introductory college mathematics) is not available for college credit to the student whose previous training in mathematics meets the prerequisites for Mathematics 12 (Plane Analytic Geometry).  
† Mathematics 20 is prerequisite to all higher numbered courses.



## PHYSICS

**5 General Physics (3)**

Introduction to the scientific method as used in the study of energy and forces; physical properties of solids, liquids, and gases; phenomena of heat and light. Material fee, \$6.

Physics 5x—same as Physics 5, but offered winter term.

Physics 5 also offered summer term 1943.

**6 General Physics\* (3)**

Mechanics, wave-motion, sound, and the theory of optical instruments. Offered winter term. Prerequisite: Physics 3-4, or 5. Material fee, \$6.

Also offered summer term 1943.

**7 General Physics\* (3)**

Electricity; magnetism; the principles underlying the uses of electric power in everyday life. Offered fall term. Prerequisite: Physics 3-4 or 5.

Also offered summer term 1943.

**8 General Physics\* (2)**

The experimental evidence concerning the nature of light, electricity, and matter; practical developments of modern physics, such as X-ray apparatus, electron tubes, and radio. Prerequisite: Physics 6 and 7.

Also offered summer term 1943.

**55 Physical Measurements (2)**

Theory and use of the methods of precise measurement in the several fields of physics. Prerequisite: Physics 6 and 7. Prerequisite concurrent registration. Mathematics 19. Material fee, \$6.

Also offered summer term 1943.

**113-14 Molecular and Atomic Physics (3-3)**

Constituent particles of matter; kinetic theory and the properties of macroscopic bodies; spectra and the structure of atoms and molecules. Introduction to chemical physics. Prerequisite: Physics 8; Mathematics 20.

**116 Optics (3)**

Geometrical optics; elementary theory of wave motion; interference, diffraction, polarization, and dispersion of light; laws of black-body radiation. Prerequisite: Physics 8; Mathematics 20.

Also offered summer term 1943.

**122 Mechanics (3)**

Acoustics; thermometry; heat conduction; the laws of thermodynamics with applications to physical systems. Prerequisite: Physics 6, Mathematics 20.

\* Physics 6, 7, and 8 constitute the basic course in physics. Students who have credit for high school physics from an accredited high school may omit Physics 3-4, or 5 as a prerequisite to Physics 6 and 7, provided that they pass a qualifying examination given at the beginning of the course (Physics 6 or Physics 7).

Before completing registration for Physics 5, 6, 7, or 55, each student must obtain from a representative of the Department an assignment to a class section.

132 *Electronics* (3)

The phenomena of electron emission from solids; the physical properties of electron tubes, and the principles underlying their basic applications. Prerequisite: Physics 8 and 125 or Physics 8 and Electrical Engineering 121. Material fee, \$6.

Also offered summer term 1943.

155-56 *Advanced Physical Measurements* (2-2)

An individual program of experiments arranged for each student in accordance with his preparation and his special interests. Prerequisite: Physics 55 and 110, or 122, or 125. Material fee, \$6 a term.

SPEECH \*

1 *Principles of Effective Speaking* (3)

Short informative speeches; delivery practice; pronunciation, enunciation, and diction; impromptu speaking. Speech recordings are required. Recording fee, \$1.50.

Speech 1x—same as Speech 1, but offered winter term.

Speech 1 also offered summer term 1943.

2 *Principles of Effective Speaking* (3)

Special emphasis is placed on persuasive and entertaining speeches. This course is a continuation of Speech 1, which is prerequisite. Recording fee, \$1.50.

131-32 *Group Thinking and Conference Leadership* (3-3)

The process of thinking and problem-solving in committees and small groups, and the methods of leading discussions and conferences. Short practice discussions and conferences. Prerequisite: six credit hours of speech or permission of the instructor. (Speech 132 not offered in 1943-44.)

STATISTICS

100 *General Statistics* (3)

A survey of statistical methods for business administration, biological sciences, commercial engineering, economics, education, fisheries, forestry, medical science, military science, sociology, psychology, and physical sciences.

†101-2 *Economic and Sociological Statistics* (3-3)

Sources of data; collecting and assembling of statistics; tabulation; graphical analysis; averages, measures of dispersion; frequency distributions; index numbers; time series; the normal curve; correlation. Prerequisite: at least one entrance unit in algebra. Laboratory fee, \$5 a term.

Also offered summer term 1943.

\* Formerly the Department of Public Speaking.

- 117 *Analysis of Covariance* (3)  
A technique of segregating from comparable groups of data the variation traceable to specific sources; a method to estimate experimental error. Prerequisite: Statistics 101-2.
- 118 *Advanced Economic and Sociological Statistics* (3)  
Advanced study of correlation and frequency analysis; and of sources, their uses and limitations. Prerequisite: Statistics 101-2.
- 151 *Least Squares and Theories of Error* (3)  
Moment coefficients; the normal and other error functions; Legendre's principle; practical Fourier analysis; likelihood; chi-test. Prerequisite: Mathematics 20.
- 152 *Curve Fitting* (3)  
Empirical and graduation functions; generating function; cumulants; Thiele's semi-invariants; Pearson and other systems of curves. Prerequisite: Mathematics 20.
- 153 *Econometrics* (3)  
Mathematical methods applied by classical and modern writers to change, production, supply and demand, utility and disutility, and interest and taxation. Prerequisite: Statistics 101-2. Mathematics 20.
- †157-58 *Intermediate Theoretical Statistics* (3-3)  
Adjustments of observations; curve fitting; design of experiments; simple sampling; theories of dispersion; expectation; frequency functions; Thiele's semi-invariants; Gram-Charlier series. Prerequisite: Mathematics 20.  
Also offered summer term 1943.
- †199-200 *Proseminar: Theoretical and Applied Statistics* (3-3)  
This course is designed to coordinate the content of the baccalaureate major. Admission by permission of the instructor.

THE SCHOOL OF MEDICINE

1943-44





THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLII

No. 3

---

THE SCHOOL OF MEDICINE

---

WASHINGTON, D. C.

PUBLISHED IN MAY  
MCMXLIII

BY THE UNIVERSITY



## CONTENTS

Calendar of the School of Medicine.....	vi
The Board of Trustees.....	1
Officers of Administration.....	2
Staff of Instruction in Medicine.....	3
Seminar Lecturers .....	15
Administrative Assistants .....	17
Technical Assistants .....	16
The School of Medicine.....	18
Courses of Instruction.....	
Anatomy .....	30
Bacteriology, Hygiene, and Preventive Medicine.....	31
Biochemistry .....	32
Dermatology and Syphilology.....	34
Medicine .....	35
Military Science and Tactics.....	36
Neurology .....	39
Obstetrics and Gynecology.....	40
Ophthalmology .....	42
Oto-rhino-laryngology .....	44
Pathology .....	45
Pediatrics .....	46
Pharmacology and Therapeutics.....	47
Physiology .....	49
Psychiatry .....	50
Surgery .....	51
Urology .....	53
Degrees Conferred, June 1942.....	56
Degrees Conferred, February 1943.....	57
Students Registered, 1942-43.....	57
Summaries of Registration, 1942-43.....	59
	64



# CALENDAR OF THE SCHOOL OF MEDICINE

## 1943-1944

Date	Day	Occasion
<b>1943</b>		
<b>SPRING TERM:</b>		
Feb. 27 .....	Saturday .....	Registration
March 1 .....	Monday .....	Spring term begins
April 23 and 24 .....	Friday and Saturday .....	Easter recess
May 31 .....	Monday .....	Memorial Day. Holiday
June 21-26 .....	Monday through Saturday .....	Examination period
June 28-July 10 .....	Monday through Saturday .....	Vacation
<b>SUMMER TERM:</b>		
July 12 .....	Monday .....	Summer term begins
Sept. 6 .....	Monday .....	Labor Day. Holiday
Nov. 1-6 .....	Monday through Saturday .....	Examination period
Nov. 8-20 .....	Monday through Saturday .....	Vacation
<b>WINTER TERM:</b>		
Nov. 20 .....	Saturday .....	Registration
Nov. 22 .....	Monday .....	Winter term begins
Nov. 25 .....	Thursday .....	Thanksgiving Day. Holiday
Dec. 24-Jan. 1 .....	Friday through Saturday .....	Christmas recess
<b>1944</b>		
Jan. 3 .....	Monday .....	Classes resume
Feb. 22 .....	Tuesday .....	University Winter Convocation
March 27-Apr. 1 .....	Monday through Saturday .....	Holiday
Apr. 3-15 .....	Monday through Saturday .....	Examination period
		Vacation
<b>SUMMER TERM:</b>		
Apr. 17 .....	Monday .....	Summer term begins
May 30 .....	Tuesday .....	Memorial Day. Holiday
July 4 .....	Tuesday .....	Independence Day. Holiday
Aug. 14-19 .....	Monday through Saturday .....	Examination period
Aug. 21-Sept. 4 .....	Monday through Monday .....	Vacation
<b>FALL TERM:</b>		
Sept. 2 .....	Saturday .....	Registration
Sept. 5 .....	Tuesday .....	Fall term begins

## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President of the University ex-officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
Arthur Peter, LL.B., *Vice Chairman*  
Harry Cassell Davis, A.M., L.H.D., *Secretary*  
Henry Parsons Erwin, A.B., *Assistant Secretary*

---

Avery DeLano Andrews, B.S., LL.B.  
Clarence Aiken Aspinwall  
Charles Silas Baker, A.M., LL.B.  
\*Harvey Cleveland Bickel, LL.B.  
John St. Clair Brookes, Jr., A.M., LL.B.  
\*Bennett Champ Clark, A.B., LL.B.  
John Henry Cowles, LL.D.  
Mrs. Joshua Evans, Jr., A.B., Ed.D.  
\*George Edgar Fleming, LL.M.  
\*Robert Elliott Freer, A.B., LL.M.  
Charles William Gerstenberg, Ph.B., LL.B., J.D.  
Charles Carroll Glover, Jr., A.M., LL.B.  
Ulysses S. Grant, 3d, B.S., Graduate United States Engineers' School  
Gilbert Grosvenor, A.M., LL.D., Litt.D.  
John Edgar Hoover, LL.M., LL.D.  
Alfred Henry Lawson, LL.B.  
Theodore Williams Noyes, A.M., LL.M. LL.D.  
Luther Halsey Reichelderfer, M.D., LL.D.  
Mrs. Henry Alvah Strong, LL.D.  
Merle Thorpe, A.B.  
Walter Rupert Tuckerman, A.B., LL.B.  
Chester Wells, B.S., Graduate United States Naval War College  
Lloyd Bennett Wilson

\*Nominated by the alumni.

## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*

Harold Griffith Sutton, M.S., *Director of Admissions*

Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*

John Russell Mason, B.S. in L.S., A.M., *Librarian*

Myrna Pauline Sedgwick, A.B., *Administrative Secretary*

Henry William Herzog, B.S., *Comptroller*

Allen Howard Connolly, B.S., *Business Manager*

Benjamin Franklin Dean, Jr., M.S., M.D., *Acting Director of Health Administration*

Vinnie Giffen Barrows A.M., *Director of Personnel Guidance*

Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Countries*

Lester Allan Smith, A.M., *Alumni Secretary*

### THE SCHOOL OF MEDICINE AND THE UNIVERSITY HOSPITAL AND DISPENSARY

Walter Andrew Bloedorn, A.M., M.D., *Dean of the School of Medicine*  
*Medical Director of the University Hospital*

John Alton Reed, A.B., M.D., *Director of the Dispensary*

## STAFF OF INSTRUCTION IN MEDICINE

### EMERITUS LIST

- GEORGE BAIN JENKINS, M.D.  
*Professor Emeritus of Anatomy*
- HURON WILLIS LAWSON, M.S., M.D.  
*Professor Emeritus of Obstetrics and Gynecology*
- WILLIAM JOHNSTON MALLORY, A.M., M.D.  
*Professor Emeritus of Medicine*
- WILLIAM BEVERLY MASON, M.D.  
*Professor Emeritus of Oto-rhino-laryngology*
- JAMES FARNANDIS MITCHELL, A.B., M.D.  
*Professor Emeritus of Clinical Surgery*
- STERLING RUFFIN, M.D., Sc.D.  
*Professor Emeritus of Medicine*

### ACTIVE LIST

- ERRETT CYRIL ALBRITTON, A.B., M.D.  
*Professor of Physiology. Consultant in Physiology, University Hospital*
- HARRY FORD ANDERSON, M.D.  
*Professor of Dermatology and Syphilology. Consultant and Chief of Service in Dermatology and Syphilology, University Hospital; Consultant, Galtzinger Hospital*
- WILLIAM STATON ANDERSON, A.B., M.D.  
*Associate in Pediatrics. Associate in Pediatrics, University Hospital*
- ARNOLD KENT BALLS, Ph.D.  
*Adjunct Professor of Enzymology*
- RALPH GREGORY BEACHLEY, M.D., Dr.P.H.  
*Adjunct Professor of Public Health Practice*
- JOHN GORDON BELL, M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital; Associate in Otolaryngology, Galtzinger Hospital*
- RUTH BENEDICT, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- SATYUDE DITHAKAR BHAKDI, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- WILLIAM KIRKMAN BILLINGSLEY, JR., A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- CATHARINE BIRCH, A.B., M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*



WALTER ANDREW BLOEDORN, A.M., M.D.

*Professor of Medicine; Dean of the School of Medicine. Medical Director and Consultant in Medicine, University Hospital; Consultant, Gallinger Hospital*

STERLING BOCKOVEN, M.D.

*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University and Gallinger hospitals*

\* DANIEL LERAY BORDEN, A.M., M.D.

*Clinical Professor of Surgery; Director of Health Administration; University Surgeon*

JETER CARROLL BRADLEY, M.D.

*Clinical Instructor in Oto-rhino-laryngology; Associate University Physician. Associate in Oto-rhino-laryngology, University Hospital*

CRENSHAW DOUGLAS BRIGGS, B.S., M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*

LEO T. BROWN, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

RADFORD BROWN, M.D.

*Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*

CLARENCE QUINTER BUNDERMAN

*SERGEANT, UNITED STATES ARMY. Instructor in Military Science and Tactics*

JAMES THEODORE BURNS, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

EDWARD ALEXANDER CAFRITZ, M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*

CHARLES POWELL CAKE, M.D.

*Adjunct Clinical Professor of Medicine. Associate in Medicine, University Hospital*

PAUL CALABRISI, A.M.

*Assistant Professor of Anatomy*

CHARLES TROLL CARROLL, A.B., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

RICHARD BERNARD CASTELL, A.B., M.D.

*Clinical Instructor in Medicine; Associate University Physician. Associate in Medicine, University Hospital*

FREDERIC DUNBAR CHAPMAN, A.B., M.D.C.M.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

WILLIAM WILEY CHASE, A.B., M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*

ELIZABETH EMERY CHICKERING, A.B., M.D.

*Associate in Pediatrics. Associate in Pediatrics, University Hospital*

CLINE N. CHIPMAN, M.D.

*Associate in Anesthesia. Associate in Surgery, University Hospital*

\* On military leave 1943-44.

*The School of Medicine*

5

- ROGER MORRISON CHOISSER, B.S., M.D.  
*Professor of Pathology. Director of Central Laboratory, Consultant in Pathology, University Hospital; Associate, Gallinger Hospital*
- CHARLES SEYMOUR COAKLEY, M.D.  
*Clinical Instructor in Anesthesia; Associate University Physician. Associate in Surgery, University Hospital*
- LAURENCE LEE COCKERILLE, M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Gynecology, Gallinger Hospital*
- ESSIE WHITE COHN, Ph.D.  
*Visiting Assistant Professor of Biochemistry*
- HAZEN EUGENE COLE, B.S., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital; Chief of Service, Gallinger Hospital*
- JAMES LLOYD COLLINS, A.B., M.D.  
*Associate in Surgery. Associate in Surgery, University Hospital; Chief of Service, Gallinger Hospital*
- COURSEN BAXTER CONKLIN, A.M., M.D.  
*Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- JOSEPH FRANCIS CONLON, D.D.S.  
*Clinical Instructor in Dental Surgery. Associate in Surgery, University Hospital*
- FRANK DUNCAN COSTENBADER, B.S., M.D.  
*Associate in Ophthalmology. Associate in Ophthalmology, University Hospital*
- RONALD ATMORE COX, A.B., M.D.  
*Assistant Clinical Professor of Ophthalmology; Associate University Physician. Associate in Ophthalmology, University and Gallinger hospitals*
- GEORGE WILLIAM CRESWELL, A.B., M.D.  
*Associate in Dermatology and Syphilology. Associate in Dermatology and Syphilology, University Hospital; Associate in Dermatology, Gallinger Hospital*
- HENRY LAURAN DARNER, A.B., M.D.  
*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- CARL CALVIN DAUER, A.B., M.D., M.P.H.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital; Associate in Infectious Diseases, Gallinger Hospital*
- DAVID DAVIS, A.B., M.D.  
*Associate in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital.*
- WILLIAM THORNWALL DAVIS, M.D.  
*Professor of Ophthalmology. Consultant and Chief of Service in Ophthalmology, University Hospital; Consultant, Gallinger Hospital*
- BENJAMIN FRANKLIN DEAN, Jr., M.S., M.D.  
*Assistant Clinical Professor of Surgery. Acting Director of Health Administration. Associate in Surgery, University and Gallinger hospitals*

HERBERT HAROLD DIAMOND, M.D.

*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital; Associate in Contagious Diseases, Gallinger Hospital*

PAUL FREDERICK DICKENS, M.D.

*Clinical Professor of Medicine. Chief of Service in Medicine, University Hospital*

SAMUEL MAYER DODEK, A.M., M.D.

*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Obstetrics, Gallinger Hospital*

HARRY HAMPTON DONNALLY, A.M., M.D.

*Professor of Pediatrics. Consultant in Pediatrics, University and Gallinger Hospitals*

HARRY SAMUEL DOUGLAS, A.B., M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*

HARRY FILMORE DOWLING, A.B., M.D.

*Clinical Professor of Medicine. Associate in Medicine, University Hospital; Chief of George Washington Medical Division, Gallinger Hospital*

JAMES ALBERT DUSBABEK, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Obstetrics, Gallinger Hospital*

ADDISON McGUIRE DUVAL, M.D.

*Associate in Psychiatry. Associate in Psychiatry, University Hospital*

WATSON WILLIAM ELDRIDGE, JR., M.D.

*Associate in Medicine. Associate in Medicine, University Hospital*

OTTO ANDERSON ENGH, A.B., M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*

JULIUS ROBERT EPSTEIN, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Gynecology, Gallinger Hospital*

CLAYTON BERNARD ETHRIDGE, M.D.

*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital; Chief of Service in Medicine and in Electrocardiography, Gallinger Hospital*

JOHN ELLSWORTH EVERETT, A.B., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

PAUL JACOB EWERHARDT, M.D.

*Clinical Instructor in Psychiatry. Associate in Psychiatry, University Hospital*

RUSSELL JOSEPH FIELDS, B.S., M.D.

*Assistant Clinical Professor of Dermatology and Syphilology. Associate in Dermatology and Syphilology, University Hospital; Chief of Service in Dermatology, Gallinger Hospital*

AUBREY DAVID FISCHER, M.D.

*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*



- ALMA FOGELBERG, Ph.D.  
*Instructor in Physiology*
- CLARENCE KENDALL FRASER, Ph.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Gynecology, Gallinger Hospital*
- WALTER FREEMAN, Ph.D., M.D.  
*Professor of Neurology. Consultant and Chief of Service in Neurology, University Hospital; Chief of Service, Gallinger Hospital*
- EDGAR LEONARD GOODMAN, M.D., M.M.S.  
*Assistant Clinical Professor of Ophthalmology. Associate in Ophthalmology, University and Gallinger hospitals*
- STEWART MAXWELL GRAYSON, M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- ANGUS MacIVOR GRIFFIN, Ph.D.  
*Assistant Professor of Bacteriology*
- EDGAR DEUCHER GRIFFIN, A.B., M.D.  
*Associate in Psychiatry, University Hospital*
- ROBERT HENRY GROH, B.S., M.D.  
*Clinical Instructor in Neurology. Associate in Neurology, University Hospital; Associate in Neurology and in Neurosurgery, Gallinger Hospital*
- MABEL HARLAKENDEN GROSVENOR, A.B., M.D.  
*Associate in Pediatrics. Associate in Pediatrics, University Hospital, Chief of Service in Contagious Diseases, Gallinger Hospital*
- ROBERT CUSTIS GRUBBS, M.S., M.D.  
*Assistant Professor of Physiology*
- CUSTIS LEE HALL, M.D.  
*Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- ROSCOE WILLIS HALL, Ph.B., M.D.  
*Clinical Professor of Psychiatry. Associate in Psychiatry, University and Gallinger hospitals*
- CHARLES ROBERT LEE HALLEY, A.B., M.D.  
*Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- BERNARD LAURISTON HARDIN, JR., A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital; Chief of Service, Gallinger Hospital*
- JEROME BLAINE HARRELL, M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- JOSEPH HARRIS, A.B., M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital*
- WILLIAM PRESTON HAYNES, A.B., M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*



**A. FIFE HEATH, M.D.***Associate in Medicine. Associate in Medicine, University and Gallinger hospital***ROBERT PORT HERWICK, Ph.D., M.D., LL.B.***Adjunct Clinical Professor of Medicine. Associate in Medicine, University Hospital***MEREDITH BENJAMIN HESDORFFER, B.S., M.D.***Clinical Instructor in Medicine. Associate in Medicine, University Hospital***ALAN HISEY, Ph.D.***Assistant Professor of Biochemistry***PEARL HOLLY, M.S., M.D.***Associate in Pathology***FRANK ADELBERT HORNADAY, M.S., M.D.***Associate Clinical Professor of Medicine; Consulting University Physician. Associate in Medicine, University Hospital***ALEC HORWITZ, M.S., M.D.***Assistant Clinical Professor of Surgery. Associate in Surgery, University Hospital; Chief of Service, Gallinger Hospital***CHARLES PERRY HOWZE, M.D.***Associate in Urology. Associate in Urology, University Hospital***CHARLES RANDOLPH HUGHES, JR., M.D.***Clinical Instructor in Medicine. Associate in Medicine, University Hospital***PHILIP WEATHERLY HUNTINGTON, M.D.***Colonel, Medical Corps, United States Army. Professor of Military Science and Tactics***\*OLIVER JOHN IRISH, Ph.D.***Instructor in Biochemistry***DOROTHY STEINLE JAEGER, M.D.***Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital***RUSSELL JANSEN, M.D.***Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital***WILLIAM HERNDON JENKINS, M.D.***Clinical Professor of Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital***DON R. JOHNSON, LL.B., M.D.***Associate in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital***HELEN GLADYS KAIN, B.S., M.D.***Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital***PAULA REINES KAISER, M.B., Ch.B.***Clinical Instructor in Surgery. Associate in Surgery, University Hospital. Associate in Anesthesia, Gallinger Hospital*

\* On military leave 1943-44.

HOWARD FRANCIS KANE, A.B., M.D.

*Professor of Obstetrics and Gynecology. Consultant and Chief of Service in Obstetrics and Gynecology, University Hospital; Head of Department, Gallinger Hospital*

SOLOMON KATZENELBOGEN, M.D.

*Clinical Professor of Psychiatry. Associate in Psychiatry, University Hospital*

MORTON SELWYN KAUFMAN, A.B., M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*

RICHARD EDWARD KELSO, M.D.

*Instructor in Pathology. Associate in Pathology, University and Gallinger hospitals*

ISABELLE KENDIG, Ph.D.

*Clinical Instructor in Psychiatry. Associate in Psychiatry, University Hospital*

IRVIN KERLAN, B.S., M.D., C.P.H.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

HARRY HYLAND KERR, M.D.C.M.

*Clinical Professor of Surgery. Associate in Surgery, University Hospital*

HAYDEN KIRBY-SMITH, B.S., M.D.

*Associate in Dermatology and Syphilology. Associate in Dermatology and Syphilology, University Hospital*

JACOB KOTZ, M.D.

*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*

ALAN FRANK KREGLOW, B.S., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

CARL ALBERT KUETHER, A.B., M.S.

*Instructor in Biochemistry*

GUY WHITMAN LEADBETTER, B.S., M.D.

*Clinical Professor of Surgery. Associate in Surgery, University Hospital*

CHESTER ELWOOD LEESE, Ph.D.

*Associate Professor of Physiology*

GEORGE PAUL LEMESHEWSKY, A.B., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

MALCOLM FOSTER LENT, M.D.

*Associate in Medicine. Associate in Medicine, University Hospital; Chief of Service in Tuberculosis, Gallinger Hospital*

BERNARD WALTER LEONARD, B.S., M.D.

*Associate in Medicine. Associate in Medicine, University Hospital*

CHARLES NOBLE LEWIS, B.S., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

EDWARD LEWIS, M.D.

*Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*

PAUL ABRAHAM LICHTMAN, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*

EDGAR WILLIAM LIGON, JR., Ph.D.

*Assistant Professor of Pharmacology*

JOHN EDWARD LIND, M.D.

*Clinical Professor of Psychiatry. Associate in Psychiatry, University Hospital*

EUGENE LEONARD LOZNER, A.B., M.D.

*Associate in Pathology. Associate in Pathology, University Hospital*

JOHN HUGH LYONS, M.S., M.D.

*Associate Clinical Professor of Surgery*

BENJAMIN MANCHESTER, M.D.

*Associate in Medicine. Associate in Medicine, University Hospital; Associate in Medicine and in Electrocardiography, Gallinger Hospital*

NICHOLAS ATHANASIOU MANDELOS, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

JOHN BAYNE MARBURY, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*

WILLIAM BERRY MARBURY, M.D.

*Clinical Professor of Surgery. Associate in Surgery, University Hospital*

CLAUDE MATTHEWS McFALL, LL.B., Ph.D.

*Professor of Anatomy. Consultant in Anatomy, University Hospital*

FRANCIS XAVIER McGOVERN, M.D.

*Associate Clinical Professor of Surgery. Associate in Surgery, University Hospital*

PRESTON ALEXANDER McLENDON, B.S., M.D.

*Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*

DANIEL BRUCE MOFFETT, A.B., M.D.

*Professor of Oto-rhino-laryngology. Consultant and Chief of Service in Oto-rhino-laryngology, University Hospital; Consultant, Gallinger Hospital*

JOHN EDWARD MORRIS, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital; Chief of Service, Gallinger Hospital*

WILLIAM ROSS MORRIS, M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University Hospital; Consultant in Thoracic Surgery, Gallinger Hospital*

WALTER KENDALL MYERS, B.S., M.D.

*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital*

CARMON ROBERT NAPLES, B.S., M.D.

*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University and Gallinger hospitals*

\* On military leave 1943-44



ESTHER ALSYLVA NATHANSON, A.B., M.D.  
Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital

JULIUS SALEM NEVIASER, A.B., M.D.  
Associate in Surgery. Associate in Surgery, University Hospital; Chief of Service in Orthopedics, Gallinger Hospital

MARGARET MARY NICHOLSON, A.B., M.D.  
Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital; Chief of Service, Gallinger Hospital

AARON NIMETZ, A.B., M.D.  
Associate in Pediatrics. Associate in Pediatrics, University and Gallinger hospitals

GEORGE NORDLINGER, A.B., M.D.  
Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital

BERNARD NOTES, M.D.  
Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital

JOEL NORTON NOVICK, M.S., M.D.  
Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital; Associate in Otolaryngology, Gallinger Hospital

ROGER O'DONNELL, JR., A.B., M.D.  
Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Gynecology, Gallinger Hospital

MORTIMER OSTOW, A.M., M.D.  
Clinical Instructor in Neurology. Associate in Neurology, University Hospital

GILBERT OTTENBERG, A.M., M.D.  
Clinical Instructor in Urology. Associate in Urology, University and Gallinger hospitals

WINFRED OVERHOLSER, A.B., M.D., Sc.D.  
Professor of Psychiatry. Consultant and Chief of Service in Psychiatry, University Hospital; Consultant, Gallinger Hospital

HOWARD POPE PARKER, A.B., M.D.  
Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Obstetrics, Gallinger Hospital

KATHERINE ELIZABETH PARKER, A.M., M.D.  
Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital

JOHN LOUIS PARKS, M.S., M.D.  
Adjunct Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital

LELAND WILBUR PARR, Ph.D.  
Professor of Bacteriology. Consultant in Bacteriology, University Hospital

RUSSELL CRANDLE PAYNE, A.B., M.D.  
Clinical Instructor in Medicine. Associate in Medicine, University Hospital



THOMAS MARTIN PEERY, A.B., M.D.

*Associate Professor of Pathology. Associate in Pathology, University and Gallinger hospitals*

CAROLYN SNYDER PINCOCK, A.B., M.D.

*Clinical Instructor in Pediatrics. Associate in Pediatrics, University and Gallinger hospitals*

MAURICE PROTAS, A.B., M.D.

*Associate in Medicine. Associate in Medicine, University and Gallinger hospitals*

LAWRENCE ELIAS PUTNAM, A.B., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

PAUL STIRLING PUTZKI, M.D.

*Clinical Professor of Surgery. Associate in Surgery, University Hospital*

HERBERT PERCY RAMSEY, A.B., M.D.

*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Consultant in Gynecology, Gallinger Hospital*

JOHN ALTON REED, A.B., M.D.

*Assistant Clinical Professor of Medicine. Director of University Dispensary. Associate in Medicine, University Hospital*

FREDERICK AUGUST REUTER, M.D.

*Professor of Urology. Consultant and Chief of Service in Urology, University Hospital; Consultant, Gallinger Hospital*

DUANE CASE RICHTMEYER, A.B., M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*

BARTON WINTERS RICHWINE, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Obstetrics, Gallinger Hospital*

ARCH LOCKHART RIDDICK, B.S., M.D.

*Clinical Professor of Surgery. Associate in Surgery, University Hospital*

ALDEN FRANKLIN ROE, Sc.D.

*Assistant Professor of Bacteriology*

JOSEPH HYRAM ROE, Ph.D.

*Professor of Biochemistry. Consultant in Biochemistry, University Hospital*

FLOYD STERLING ROGERS, Jr., M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Gynecology, Gallinger Hospital*

WALTER JOSEPH ROMEJKO, B.S., M.D.

*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University and Gallinger hospitals*

LOUIS ROSS, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

- PERCEVAL SHERER ROSSITER, M.D.  
 REAR ADMIRAL, RETIRED, MEDICAL CORPS, UNITED STATES NAVY. *Chief of Staff, Gallinger Hospital*
- ADOLPH ROSTENBERG, JR., A.B., M.D.C.M.  
*Clinical Instructor in Dermatology and Syphilology. Associate in Dermatology and Syphilology, University Hospital*
- GEORGE BYRON ROTH, A.B., M.D.  
*Professor of Pharmacology. Consultant in Pharmacology, University Hospital*
- GILBERT BRITT RUDE, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- \* WILLIAM WARREN SAGER, M.S., M.D.  
*Associate Clinical Professor of Surgery*
- LEROY LEE SAWYER, A.B., M.D.  
*Assistant Clinical Professor of Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*
- HERBERT HERMANN SCHOENFELD, M.D.  
*Associate Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- CHARLES AURELIUS SCHUTZ, M.D.  
*Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*
- LEON SCHWARTZ, A.B., M.D., M.P.H.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- WILLIAM HENRY SEBRELL, JR., M.D.  
*Professorial Lecturer on Nutrition*
- SAMUEL HAZEN SHEA, A.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Gynecology, Gallinger Hospital*
- ERNEST ALFRED WATSON SHEPPARD, M.D.C.M.  
*Associate Clinical Professor of Ophthalmology. Associate in Ophthalmology, University Hospital; Chief of Service, Gallinger Hospital*
- SAMUEL ALEXANDER SILK, Ph.G., M.D.  
*Associate in Psychiatry. Associate in Psychiatry, University Hospital*
- ALEXANDER SIMON, A.B., M.D.  
*Associate in Neurology. Associate in Neurology, University Hospital*
- DONALD HARRISON STUBBS, A.M., M.D.  
*Associate in Surgery. Associate in Surgery, University Hospital*
- LEWIS KAIGLER SWEET, A.B., M.D.  
*Adjunct Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*
- ROBERT GEORGE TAYLOR, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

\* On military leave 1943-44.

- IRA ROCKWOOD TELFORD, JR., PH.D.  
*Assistant Professor of Anatomy*
- WILLIAM DANDRIDGE TERRELL, JR., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- LAWRENCE JAY THOMAS, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- WILLIAM RAYMOND THOMAS, M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital*
- RICHARD KNIGHT THOMPSON, D.D.S.  
*Associate in Dental Surgery. Associate in Surgery, University Hospital*
- THOMAS CARLTON THOMPSON, B.S., M.D.  
*Clinical Professor of Urology. Associate in Urology, University Hospital; Chief of Service, Gallinger Hospital*
- LYMAN BROOKE TIBBETTS, PH.D., M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital; Associate in Otology, Gallinger Hospital*
- ELIJAH WHITE TITUS, PH.D., M.D.  
*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- RICHARD HENRY TODD, A.B., M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*
- HARRIET ELIZABETH TWOMBLY, A.B., M.D.  
*Associate in Psychiatry. Associate in Psychiatry, University and Gallinger hospitals*
- HOMER KING VANN, A.B., M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital; Associate in Otology, Gallinger Hospital*
- JAMES ROSS VEAL, B.S., M.D.  
*Adjunct Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- LEON HUGH WARREN, A.B., M.D., M.S. IN M.D.  
*Clinical Instructor in Dermatology and Syphilology. Associate in Dermatology and Syphilology, University Hospital; Associate in Dermatology, Gallinger Hospital*
- JOHN AUGUSTINE WASHINGTON, A.B., B.S., M.D.  
*Associate in Pediatrics. Associate in Pediatrics, University Hospital*
- JAMES WINSTON WATTS, B.S., M.D.  
*Clinical Professor of Neurosurgery. Associate in Neurology, University Hospital; Associate in Neurosurgery, Gallinger Hospital*
- EDWARD LEONG WAY, PH.D.  
*Instructor in Pharmacology*



SIMON WEINER, B.S., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

JACOB JOSEPH WEINSTEIN, B.S., Ph.G., M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*

CHARLES STANLEY WHITE, M.D.

*Professor of Surgery. Consultant and Chief of Service in Surgery, University Hospital; Head of Department, Gallinger Hospital*

RICHARD WALLACE WILKINSON, A.B., M.S., M.D.

*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University Hospital*

IRVING WOLF WINIK, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*

WILLIAM GLENN YOUNG, M.D.

*Clinical Instructor in Urology. Associate in Urology, University Hospital*

### SEMINAR LECTURERS

#### HYGIENE AND PREVENTIVE MEDICINE

CHARLES ARMSTRONG, B.S., M.D., Sc.D.

*Professorial Lecturer in Preventive Medicine*

SARA ELIZABETH BRANHAM, Ph.D., M.D., Sc.D.

*Professorial Lecturer in Preventive Medicine*

ROLLA EUGENE DYER, A.B., LL.D., M.D.

*Professorial Lecturer in Preventive Medicine*

CHESTER WILSON EMMONS, Ph.D.

*Professorial Lecturer in Medical Mycology*

ALICE CATHERINE EVANS, M.S., M.D., Sc.D.

*Professorial Lecturer in Preventive Medicine*

ROYD RAY SAYERS, A.M., M.D.

*Professorial Lecturer on Industrial Hygiene*

ROSCOE ROY SPENCER, A.B., M.D.

*Professorial Lecturer in Hygiene and Preventive Medicine*

RAYMOND ALOYSIUS VONDERLEHR, M.D.

*Professorial Lecturer in Preventive Medicine*

WILLIAM HULL WRIGHT, D.V.M., Ph.D.

*Professorial Lecturer in Preventive Medicine*

### ASSISTANTS

#### ASSISTANTS IN RESEARCH AND INSTRUCTION

ABRAHAM ROBERT ABARBANEL, A.B., M.D.

*Fellow in Obstetrics and Gynecology*

WILLIAM HENRY BAILEY, B.S.

*Sanders Fellow in Biochemistry*



BEATRICE BISHOP BERLE, A.M., M.D.  
*Fellow in Medicine. Associate in Medicine, Gallinger Hospital*

MARK HUMMER LEPPER, A.B., M.D.  
*Fellow in Medicine. Associate in Infectious Diseases, Gallinger Hospital*

JESUS MATA DE GREGORIO, M.D.  
*Fellow in Neurology and Neurosurgery*

JEAN KELLY NIELSEN, B.S., A.M.  
*Sanders Fellow in Bacteriology*

MYRNA JANE OSTERLING, A.M.  
*Fellow in Biochemistry*

#### TECHNICAL ASSISTANTS

JAMES EVERETT BOWES  
*Technician in Bacteriology*

RICHARD STEBBINS GRAVES, A.B.  
*Laboratory Assistant*

ALLEN FREDERICK KINGMAN, Jr.  
*Technician in Biochemistry*

CLARENCE WILBUR MILLER  
*Technician in Pathology*

CAYETANO NAGAC, A.B.  
*Technician in Pathology*

RALPHA RANDELL  
*Technician in Anatomy*

MARY LOUISE ROBBINS, A.M.  
*Laboratory Assistant in Bacteriology*

KENNETH BRUCE SNIDER  
*Technician in Physiology*

ANNA STEFFENS  
*Technician in Neurology*

ROLLAN SWANSON  
*Technician in Pharmacology*

LOUISA WELLS  
*Orthoptic Technician*

CAROLYN WENK  
*Technician in Pathology*

MORRIS WULFSON, M.D., C.P.H.  
*Laboratory Supervisor in Pathology*

ESTELLE TREBERT GRISWOLD  
*Laboratory Technician in Clinical Pathology*

ADMINISTRATIVE ASSISTANTS

THE SCHOOL OF MEDICINE

Catherine Breen, *Secretary to the Dean of the School of Medicine*  
Isabella Frances Young, A.B., *Assistant Librarian, Medical Library*  
Mary Louise Moore, *Stenographer*  
Mary Frances Merz, *Stenographer*  
Louise Ash, A.B., *Stenographer*  
Dorothy Jean Simmons, *Stenographer*  
Naomi Earl, *Stenographer*

THE UNIVERSITY HOSPITAL AND DISPENSARY

Jane Ridenour Terry, R.N., *Superintendent of Nurses*  
Helen Elvira Swanson, *Secretary to the Medical Director*  
Catherine Elta Nichols, *Bookkeeper*  
Margaret Luttrell, *Assistant Bookkeeper*  
Willa Lillian Murray, A.M., *Social Worker*  
Catherine Evans, *Dispensary Clerk*  
Theodosia Foxwell Garnett, M.T., S.R.N., *Laboratory Supervisor*  
Margaret Stack, M.T., *Laboratory Technician*  
Joyce Sullivan Lepper, A.B., M.T., *Laboratory Technician*  
Leopold Henry Forster, Ph.G., *Pharmacist*  
William Grant Lawson, B.C.S., *X-Ray Technician*  
Mary Holden Philbrick, *Dietitian*  
Margaret Scruggs French, *Record Librarian*

## THE SCHOOL OF MEDICINE

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Walter Andrew Bloedorn, A.M., M.D., *Dean of the School of Medicine*

---

William Thornwall Davis, M.D., *Professor of Ophthalmology*  
Joseph Hiram Roe, Ph.D., *Professor of Biochemistry*  
Harry Hampton Donnally, A.M., M.D., *Professor of Pediatrics*  
George Byron Roth, A.B., M.D., *Professor of Pharmacology*  
Walter Freeman, Ph.D., M.D., *Professor of Neurology*  
Walter Andrew Bloedorn, A.M., M.D., *Professor of Medicine*  
Charles Stanley White, M.D., *Professor of Surgery*  
Radford Brown, M.D., *Professor of Obstetrics and Gynecology*  
Howard Francis Kane, A.B., M.D., *Professor of Obstetrics and Gynecology*  
Errett Cyril Albritton, A.B., M.D., *Professor of Physiology*  
Roger Morrison Choisser, B.S., M.D., *Professor of Pathology*  
Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry*  
Leland Wilbur Parr, Ph.D., *Professor of Bacteriology*  
Frederick August Reuter, M.D., *Professor of Urology*  
Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology*  
Claude Matthews McFall, LL.B., Ph.D., *Professor of Anatomy*  
Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology*  
Philip Weatherly Huntington, M.D., *Professor of Military Science and Tactics*  
John Edward Lind, M.D., *Clinical Professor of Psychiatry*  
Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
\*Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
James Winston Watts, B.S., M.D., *Clinical Professor of Neurosurgery*  
Chester Elwood Leese, Ph.D., *Associate Professor of Physiology*  
Thomas Martin Peery, A.B., M.D., *Associate Professor of Pathology*  
Ernest Alfred Watson Sheppard, M.D.C.M., *Associate Clinical Professor of Ophthalmology*  
Frank Adelbert Hornaday, M.S., M.D., *Associate Clinical Professor of Medicine*

\* On military leave 1943-44.

COMMITTEES\*

THE DEAN'S COUNCIL

Harry Hampton Donnally  
Joseph Hiram Roe  
Charles Stanley White

COMMITTEE ON ADMINISTRATION OF THE UNIVERSITY HOSPITAL AND DISPENSARY

Walter Andrew Bloedorn, *Chairman*  
Howard Francis Kane  
Charles Stanley White

COMMITTEE ON ADMISSIONS

Joseph Hiram Roe, *Chairman*  
Leland Wilbur Parr

COMMITTEE ON CURRICULUM

Roger Morrison Choisser, *Chairman*  
Leland Wilbur Parr  
Harry Fillmore Dowling

COMMITTEE ON GRADUATE STUDIES

Errett Cyril Albritton, *Chairman*  
Walter Freeman  
George Byron Roth

COMMITTEE ON LIBRARY

George Byron Roth, *Chairman*  
John Edward Lind  
Harry Ford Anderson

COMMITTEE ON RESEARCH

Roger Morrison Choisser, *Chairman*  
Errett Cyril Albritton

COMMITTEE ON SCHOLARSHIP

Joseph Hiram Roe, *Chairman*  
Howard Francis Kane  
Roger Morrison Choisser  
Leland Wilbur Parr

\* The President of the University and the Dean of the School of Medicine are members ex officio of all committees.



## GENERAL INFORMATION

## INTRODUCTORY

The School of Medicine of The George Washington University was opened in March 1825; of the medical schools now in existence in the United States, it is the eleventh in chronological order of founding. The University Hospital and Dispensary were established in 1898 and made a part of the organization of the School.

The School is a member of the Association of American Medical Colleges and is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association. The degrees of the School of Medicine are recognized by all state examining boards.

## PLAN OF INSTRUCTION

The George Washington University School of Medicine, recognizing the urgent need for medical services during the war period, has reorganized its course to permit the completion of the customary four academic years in three calendar years. Each academic year will be composed of two terms totaling thirty-six weeks. A new class will be admitted every other term. In approving the plan adopted by the Faculty of the School of Medicine, the Board of Trustees authorized its continuance for the duration of the war.

## EQUIPMENT AND FACILITIES

*Medical School Building.*—The building housing the School of Medicine is a five-story structure with lecture rooms and classrooms, laboratories, and students' rooms.

*Laboratories.*—A four-story laboratory building is adjacent to the main medical building. The major laboratories are for anatomy, histology and embryology, bacteriology, hygiene and preventive medicine, biochemistry, pathology, pharmacology and physiology, and clinical microscopy. They are fully equipped to enable students to pursue adequately the laboratory courses and to acquire the technical skill necessary in modern clinical and investigative work.

*Medical Library.*—The Library contains a selected reference collection of more than 5,000 volumes, and provision is made to add to it the important new medical works. The principal medical periodicals are received regularly.

*The University Hospital and the University Dispensary.*—The Hospital and Dispensary are adjacent to the School of Medicine and are controlled by the Faculty of Medicine.

#### GOVERNMENT LIBRARIES AND MUSEUMS

The Library of the Surgeon General's Office of the United States Army is the most complete general medical library in the world. In addition to its great collections of medical works, all leading medical periodicals of the world are available. This Library, as well as the Library of Congress, the Public Library, and the many excellent libraries of the various government departments, is available to students and teachers through a service maintained by the Medical School Library.

The Army Medical Museum affords opportunity for studying the conditions met in military and general medicine and surgery. Its collection of anatomical and pathological specimens is unequaled by any other museum in this country. The Museum of Hygiene, the National Museum, the Smithsonian Institution, the Botanic Gardens, and the Department of Agriculture all afford opportunities for study in Medicine and its allied sciences.

#### CLINICS

The city of Washington, with about a million inhabitants, provides ample clinical material. The University Hospital and Dispensary furnish clinical facilities and a large proportion of the materials studied in the courses in pathology and clinical pathology.

*The University Hospital.*—All clinics are under the supervision of the Dean, who is also Medical Director of the Hospital. This insures the highest possible utilization of available clinical material for teaching purposes and the proper supervision of clinicians and students; it brings the individual student into direct contact with patients and requires him to do, under authoritative supervision, the clinical and laboratory work necessary for diagnosis and treatment; and it permits proper interpretation of the conditions occurring during the progress of cases and promotes the keeping of adequate records. Clinical and clinico-pathological conferences are held in which the history of cases, the physical findings, laboratory records, and the post-mortem pathology when available, are presented and correlated.

*The University Dispensary.*—The Dispensary has a large out-patient service in all departments, to which several thousand visits are made annually. Fourth-year students are assigned in rotation by sections for clinical instruction in the Dispensary.

*Gallinger Municipal Hospital.*—Clinical instruction is available in all branches of medicine. A great wealth of clinical material is afforded in this hospital by ordinance of the municipal authorities of the District of Columbia, whereby one half of the patients are assigned for treatment and clinical teaching to members of the Faculty of this School, nominated by this University. Third-year students serve their clinical clerkships at this institution.

*Children's Hospital.*—Clinical instruction in pediatrics, dermatology and orthopedic surgery.

*Emergency Hospital and Central Dispensary.*—Clinical instruction in medicine, surgery, obstetrics and gynecology, and the specialties.

*Garfield Memorial Hospital.*—Clinical instruction in gynecology and obstetrics in the out-patient department, on the wards, and in the operating room.

*St. Elizabeths Hospital.*—Clinical instruction in mental and nervous diseases, medicine, post-mortem work, and gross pathology. This hospital with five and one-half thousand beds, is maintained by the United States Government. The psychiatric clinic is one of the largest in the world.

*Episcopal Eye, Ear and Throat Hospital.*—Clinical instruction in ophthalmology, otology, rhinology, and laryngology.

*Columbia Hospital.*—Clinical instruction in gynecology and obstetrics in the out-patient department, on the wards, and in the operating room.

#### ADMISSION

Sixty hours of credit applicable toward a degree in this University or another college of liberal arts and sciences are required for admission to the School of Medicine.

A credit hour represents one class hour or a minimum of two laboratory hours a week for a period of one term of approximately fifteen weeks.

#### SPECIFIC EDUCATIONAL REQUIREMENTS

##### Secondary School Requirements

Of the fifteen secondary school units required, three must be in English, two in one foreign language (ancient or modern), one in algebra, one in geometry, one in history, and one in science (botany, chemistry, physics, or zoology). Eleven of the units offered must be in English, foreign language, mathematics, science, and history.

##### Premedical College Requirements

#### SIXTY CREDIT HOURS

1. Chemistry, sixteen credit hours as follows: (a) eight credit hours in general inorganic chemistry, of which at least four credit hours are laboratory work (qualitative analysis may be counted as general inorganic chemistry); (b) eight credit hours or a one-year college course of organic chemistry, including laboratory work.

2. Physics, eight credit hours, of which at least two credit hours are laboratory work. It is recommended that this course be preceded by one in trigonometry.



3. Biology, eight credit hours, of which at least four credit hours are laboratory work. This requirement may be satisfied by a course of eight credit hours in either general biology or zoology, or by four credit hours each in zoology and botany, but not by botany alone.

4. English composition and literature, six credit hours: the usual introductory college course or the equivalent. The student should develop facility in speaking and writing English.

5. Modern foreign language: a reading knowledge, preferably of French or German.

6. Electives. It is recommended that the remaining credit hours required include: (a) comparative vertebrate anatomy; (b) qualitative and quantitative chemical analysis; (c) social science and psychology.

#### ADVANCED STANDING

A student who has satisfactorily attended one or two years at any other "class A" medical school, and who has the necessary preliminary educational requirements, may be admitted to advanced standing.

#### APPLICATION FOR ADMISSION

1. Full directions for application will be furnished on request. The applicant should ask the registrar of each college previously attended to send an official transcript of record to the Director of Admissions, The George Washington University. Photostatic copies of credentials without the original signature of the certifying authority are not satisfactory.

2. A recent photograph, with signature, is required of each applicant.

3. As the number of qualified applicants for admission to the School each year far exceeds its capacity, the candidate for admission should secure from the colleges attended completely compiled premedical credentials and send them for evaluation well in advance of the term for which he is applying.

4. A fee of \$3 to defray the costs of completing the records for final consideration for admission must accompany each application.

#### REGISTRATION AND ADMISSION TO CLASSES

Registration in the School of Medicine is for a period of one academic year (two successive terms). After the student has entered the courses of instruction he is obligated for the full tuition for the academic year. No part of the tuition will be refunded upon withdrawal or dismissal for any cause. Acceptance by the School of a student's fees does not in any way obligate the School to accept the student for any subsequent year, and the right is reserved to drop any student from the School whenever, in the interest of the student or the School, the Faculty deems it advisable to do so.



Students are admitted to classes on presentation of the Comptroller's ticket, which is issued when all required fees have been paid.

#### FEES AND FINANCIAL REGULATIONS

The following fees are prescribed by statute:

University fee, for each term or for any part thereof.....	\$8
Tuition fee, for each academic year.....	534.00
Fee for special examinations, for each subject.....	5
Graduation fee .....	20

#### UNIVERSITY FEE

Payment of the University fee, charged all students, covers all expenses incident to registration and, in addition secures to them the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the services of the Placement Office; (3) the use of the University library facilities, except as otherwise designated; (4) gymnasium privileges; (5) admission to all athletic contests unless otherwise specified; (6) subscription to the *University Hatchet*; the student newspaper; (7) admission to University debates; (8) medical attention and hospital services as described under the Department of Health Administration, page 26. These privileges, however, with the exception of the issuance of transcripts, terminate, and a student is no longer in residence, when he withdraws or is dropped from the University.

#### PAYMENT OF FEES

Fees for each term (including the University fee) are \$275, payable in advance.

All fees are payable at the Office of the Cashier of the University, 725 Twenty-first Street NW. Fees due must be paid at the time of registration; no student is permitted to complete registration or to attend classes until fees are paid.

On account of the many applications for admission, and as the size of each class is limited, places can be reserved only for those qualified applicants who remit a deposit of \$100 which will be credited toward the tuition of the first term. Should unusual circumstances arise wherein the matriculant is unable to attend, this initial payment, less a charge of \$50 for registration, transfer, etc., will be returned up to one month before the opening of the session.

Students will be required to pay for injury to apparatus and other University property. All breakage and loss not directly traceable to an individual student are assessed pro rata. Each student is required, at the completion of laboratory courses, to replace or pay for all articles

equipment which he has lost, broken, or destroyed. Credit for work will not be given until this is done.

#### COST OF TEXTBOOKS AND STUDENT EQUIPMENT

The minimum cost of necessary textbooks and student equipment (microscope, drawing materials, glass slides, clinical thermometer, stethoscope, hemocytometer, etc.) is approximately as follows: first year, \$250; second year, \$100; third year, \$75; fourth year, \$75; total \$500.

#### LOAN FUNDS

For information concerning loan funds consult the Chairman or the Committee on Student Loans and Scholarships, The George Washington University.

#### LIVING ACCOMMODATIONS FOR WOMEN

*The Hattie M. Strong Residence Hall for Women:* Application for room reservations in this hall should be made well in advance of the term for which such reservations are desired. Single rooms with breakfast and dinner are \$52.50 a month; double rooms with the same service are \$45.50 a month a person. These prices are subject to change without notice. Forms for application, together with detailed information, may be obtained from the Director of Personnel Guidance.

#### REGULATIONS

*Students in the School of Medicine are subject to, and are expected to familiarize themselves with, the general University regulations stated in the University Catalogue.*

#### ABSENCE

Absence is not allowed unless an excuse is obtained from the Dean or the instructor.

Absence consists in being away from a class or clinic during a scheduled period, entering after the class or clinic has begun, or leaving before either is dismissed.

Excuse for absence due to sickness must be accompanied by a certificate signed by the attending physician and must be filed in the Office of the Dean.

For every unexcused absence a department will deduct one-half of one per cent from the student's final grade in the subject involved.

#### GRADES

The following grading system is used: *A* (90-100); *B* (80-89); *C* (75-79); *D* (65-74), condition; *E* (below 64) failure; *Inc.*, incomplete. The passing grade in each subject is *C*.

### FAILURE

A student who has failed in any subject will not be advanced until such failure is removed and then only by authority of the Committee on Scholarship. All conditions must be removed at the next make-up examination period provided for this purpose.

### EXAMINATIONS

Examinations, which may be written, oral, or practical, will be held at the end of each term.

A student who fails to appear at a regularly scheduled final examination will not be examined until the next regular examination, except by special permission of the Committee on Scholarship. For make-up examinations to remove conditions, a fee of \$5 will be charged for each subject.

All students in the School of Medicine are required to take Part I and Part II of the National Board Examinations, except that students from those states and foreign countries which do not recognize the National Board may be exempted from Part II by action of the Committee on Scholarship.

### SPECIAL UNDERGRADUATE AND GRADUATE ADVANTAGES

#### HEALTH ADMINISTRATION

The payment of the University fee entitles students to health services hereinafter described. Through reports from the students and University officials, the University attempts to keep informed as to all cases of illness among its students. This service is primarily diagnostic in intent. It also provides first aid in the event of an emergency.

Medical privileges include: (1) the physical examination of all entering students; (2) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examination; (3) hospitalization, including board, medicine, and nursing in the University Hospital for not more than two weeks during an academic year—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, two weeks) is also to be determined by the Director of Health Administration.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of the University registration fee.

Students are allowed, if they so desire, to engage physicians and nurses of their own choice, but when they do so they will be responsible for the fees charged.



Rules: (1) The Director of Health Administration is empowered to limit or deny the medical benefits where, in his discretion, a student has, by his misconduct or breach of the rules of the University, made himself ineligible; (2) the Director of Health Administration has authority to determine the necessity and length of hospitalization; (3) students who have severed their connection with the University are ineligible for medical benefits.

#### PHYSICAL EXAMINATIONS\*

All first-year students are given a comprehensive physical examination by the Department of Health Administration upon admission to the School of Medicine. The students are informed of the findings and advised regarding such measures as will tend to maintain a high standard of health.

In addition medical students benefit from the complete Tuberculosis Case Finding Program which the School has maintained since 1938-39. Under this program all students receive tuberculin tests, X-ray examinations, and such special attention from chest specialists as is necessary to reduce to a minimum the dangers from tuberculosis to which medical students are believed to be subject. Students are immunized against those diseases for which proven prophylactics exist.

#### AWARDS AND HONOR SOCIETIES

*John Ordronaux Prize.*—This prize of \$70 is awarded annually to the member of the graduating class of the School of Medicine who has completed the four-year medical course with the highest scholastic standing.

*William Beaumont Medical Society.*—Medical students showing unusual ability are elected by the active members of this society, which was founded to encourage and stimulate individual investigation.

*A. F. A. King Obstetrical Society.*—The fifteen students in the third and fourth year classes who maintain the highest grades in their work in obstetrics are eligible for membership.

*Smith-Reed-Russell Society.*—Students of the third and fourth years who maintain a scholastic average of 86 per cent are eligible for associate membership.

#### RESERVE OFFICERS' TRAINING CORPS, U. S. ARMY, MEDICAL UNIT

A Medical Unit of the Reserve Officers' Training Corps is established in this School by authority of the Secretary of War, and an officer of the Medical Corps of the Army is detailed to the University for supervision and instruction of the unit.

\* A charge of \$2 is made if a student fails to appear for a physical examination during the period set for this purpose.



Membership in the Unit, which is voluntary, is open to any physically fit male student who is a citizen of the United States. The instruction is divided into two two-year courses, the basic and the advanced. Students who satisfactorily complete the basic course may, up to the quota allowed by the War Department, enter the advanced course. A student who enters the advanced course receives approximately \$200 from the Government. He is obligated to complete the course.

A student who successfully completes the course is recommended for a commission in the Medical Section, Officers' Reserve Corps, if he desires appointment. A graduate may, after completion of one year's internship in a civil hospital, compete in the examinations held yearly for appointment as first lieutenant in the Medical Corps, Regular Army.

All students in the School of Medicine are required to attend all lectures for the Reserve Officers' Training Unit.

#### HOSPITAL APPOINTMENTS

Interns and residents are appointed annually in the University Hospital.

Students who, after graduation, desire internships in other hospitals should apply directly to the institution which they wish to enter. A list of hospitals approved for intern training is published annually in the *Journal of the American Medical Association*, and a copy of the list may be consulted in the Office of the Dean.

#### COMMISSION ON LICENSURE, DISTRICT OF COLUMBIA

Graduates who wish to take the examinations of the Commission on Licensure, District of Columbia, or desire to use the District license for reciprocity with the states, should apply to the Secretary, Commission on Licensure, Healing Arts Practice Act, District Building, Washington, D. C.

#### UNIVERSITY MEDICAL SOCIETY

The George Washington University Medical Society was established in 1905. All alumni and members of the Faculty are eligible for membership on election. Meetings of the Society are held in the School of Medicine on the third Saturday evening of each month from October to May. Senior students are invited to attend the meetings of this Society.

#### DEPARTMENTS OF INSTRUCTION

The work of the School is organized under the following departments: Anatomy; Bacteriology, Hygiene, and Preventive Medicine; Biochemistry; Dermatology and Syphilology; Medicine; Military Science and

Tactics; Neurology; Obstetrics and Gynecology; Ophthalmology; Otorhino-laryngology; Pathology; Pediatrics; Pharmacology and Therapeutics; Physiology; Psychiatry; Surgery; and Urology.

#### CLINICS

Courses of clinical instruction are included in the announcements of the clinical departments. The Dean prepares schedules of clinics and of student section assignments to the various hospitals and dispensaries.

#### THE DEGREE OF DOCTOR OF MEDICINE

Upon the satisfactory completion of the requirements of the School of Medicine, the degree of Doctor of Medicine is conferred.

#### REQUIREMENTS FOR THE DEGREE

Every candidate for graduation with the degree of Doctor of Medicine must be at least twenty-one years of age, of reputable character, and free of all indebtedness to the University. He must have satisfied the admission requirements, completed satisfactorily not less than four academic years of study as a matriculated student in Medicine, completed all required courses, and passed satisfactorily all prescribed examinations.

#### COMBINED ARTS AND MEDICINE CURRICULUM

The candidate registers in the Junior College for the freshman and sophomore years of the premedical curriculum and in Columbian College for the junior year. In order to be recommended for the degree of Bachelor of Arts, he must complete at least ninety credit hours of prescribed college work exclusive of Physical Education (at least thirty credit hours and one year of residence must be completed in Columbian College), and the first year of the medical curriculum. Upon satisfactory completion of the fourth year in the medical curriculum the student becomes eligible for the degree of Doctor of Medicine.

#### HONORS

A candidate who has completed the four-year medical course with an average grade of *A* may be recommended for graduation "with distinction".

---

For application blanks and further information, address the Director of Admissions, The George Washington University, Washington, D. C.

## COURSES OF INSTRUCTION

On the following pages of this BULLETIN, under the alphabetically arranged names of the departments of instruction, are listed the courses of instruction offered by the School of Medicine. The courses here listed are subject to some slight change. The University reserves the right to withdraw any course announced.

### EXPLANATION OF COURSE NUMBERS AND SYMBOLS

The number which precedes the name of a course indicates the term of the academic year in which that course is offered. An odd number indicates that the course is offered in the first term; an even number, that it is offered in the second term; and a double number (e.g., 343-44), that it begins in the first term and continues in the second.

A number in parentheses after the name of a nonprofessional course, indicates credit hours.

First-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third-year courses, from 301 to 400; and fourth-year courses, from 401 to 500.

## ANATOMY

Claude Matthews McFall, LL.B., Ph.D., *Professor of Anatomy, Executive Officer*

Ira Rockwood Telford, Jr., Ph.D., *Assistant Professor of Anatomy*

Paul Calabrisi, A.M., *Assistant Professor of Anatomy*

101 *Gross Anatomy* McFall and Staff  
Instruction in osteology, followed by the careful dissection and study of the entire body. Fifteen hours a week.

103 *Histology and Embryology* The Staff  
The histogenesis and microscopic structure of the tissues and organs of the human body. Twelve hours a week.

104 *Neuro-Anatomy* The Staff  
Fifteen hours a week.

203-4 *Research* The Staff  
Hours and credits to be arranged.



## BACTERIOLOGY, HYGIENE, AND PREVENTIVE MEDICINE

Leland Wilbur Parr, Ph.D., *Professor of Bacteriology, Executive Officer*  
 Ralph Gregory Beachley, M.D., Dr.P.H., *Adjunct Professor of Public  
 Health Practice*  
 Angus MacIvor Griffin, Ph.D., *Assistant Professor of Bacteriology*  
 Alden Franklin Roe, Sc.D., *Assistant Professor of Bacteriology*

### SEMINAR LECTURERS

Roscoe Roy Spencer, A.B., M.D., *Professorial Lecturer in Hygiene and  
 Preventive Medicine*  
 Charles Armstrong, B.S., M.D., Sc.D., *Professorial Lecturer in Pre-  
 ventive Medicine*  
 Rolla Eugene Dyer, A.B., M.D., *Professorial Lecturer in Preventive  
 Medicine*  
 Royd Ray Sayers, A.M., M.D., *Professorial Lecturer on Industrial  
 Hygiene*  
 Raymond Aloysius Vonderlehr, M.D., *Professorial Lecturer in Pre-  
 ventive Medicine*  
 Sara Elizabeth Branham, Ph.D., M.D., Sc.D., *Professorial Lecturer in  
 Preventive Medicine*  
 Alice Catherine Evans, M.S., M.D., Sc.D., *Professorial Lecturer in Pre-  
 ventive Medicine*  
 Chester Wilson Emmons, Ph.D., *Professorial Lecturer on Medical My-  
 cology*  
 Willard Hull Wright, D.V.M., Ph.D., *Professorial Lecturer in Pre-  
 ventive Medicine*

112 *General Bacteriology* (4) Roe  
 A study of the fundamentals of bacteriology, including industrial and  
 hygienic applications. Several groups of bacteria, yeasts, and molds  
 are studied in the laboratory. Tues., Thurs., and Sat., 9:10 A.M. to  
 12:00 M.

205 *Advanced Bacteriology* Roe  
 Prerequisite: Bacteriology 112. Hours and credits to be arranged.

209 *Bacteriology, Parasitology, and* Parr, Griffin  
*Immunology*

Bacteriological technique study of micro-organisms and parasites re-  
 lated to medical and hygienic problems. Methods of diagnosis are  
 stressed and immunological procedures and theory fully treated. Eight-  
 een hours a week for ten weeks.

- 210 *Immunology and Serology* Griffin  
Prerequisite: Bacteriology 112 or 209. Hours and credits to be arranged.
- 220 *Fundamentals of Hygiene and Preventive Medicine* (2) Parr and Staff  
An introduction to the study of preventive medicine and hygiene, involving all the subject matter suitable for the student of medicine who has not yet had clinical training. Two hours a week.
- 303-4 *Research in Bacteriology* The Staff  
Hours and credits to be arranged.
- 305-6 *Staff Seminar* (2-2) Parr and Staff  
Weekly first term (Parr, Roe). Weekly second term (Parr, Griffin).
- 401-2 *Public Health Practice* Beachley  
The application of the specialty of preventive medicine in health department practice. One hour a week.

## BIOCHEMISTRY

Joseph Hiram Roe, Ph.D., *Professor of Biochemistry, Executive Officer*  
 Arnold Kent Balls, Ph.D., *Adjunct Professor of Enzymology*  
 William Henry Sebrell, Jr., M.D., *Professorial Lecturer on Nutrition*  
 Alan Hisey, Ph.D., *Assistant Professor of Biochemistry*  
 Essie White Cohn, Ph.D., *Visiting Assistant Professor of Biochemistry*  
 \*Oliver John Irish, Ph.D., *Instructor in Biochemistry*  
 Carl Albert Kuether, A.B., M.S., *Instructor in Biochemistry*

- 113-14 *Biochemistry* Roe and Staff  
 Physiological and clinical chemistry for the first-year medical student.  
 Tues. and Thurs., 1:00 to 5:00 P.M. Two lectures and two three-hour laboratory periods a week.
- 221-22 *Biochemistry (4-4)* Hisey  
 Lecture and laboratory course for nonmedical students. Prerequisite:  
 Chemistry 152. Mon. and Wed., 9:00 A.M. to 12:00 M.
- 224 *Biochemistry of the Enzymes (elective)* Balls  
 Lecture course dealing with the biochemistry of the enzymes and  
 enzyme reactions. Prerequisite: Biochemistry 113 or 221. Mon.,  
 4:45 P.M. One hour a week.
- 225 *Biochemical Preparations* The Staff  
 Hours and credits to be arranged.
- 226 *Biochemical Laboratory Methods* Roe  
 Hours and credits to be arranged.
- 227-28 *Biochemistry Seminar (1-1)* Roe and Staff  
 The current literature in the field of biochemistry, mainly for graduate  
 students, but open to a limited number of specially qualified medical  
 students. Fri., 4:45 P.M.
- 229-30 *Research in Biochemistry* Roe and Staff  
 Hours and credits to be arranged.
- 231-32 *Nutrition (1-1)* Roe and Staff  
 For graduate students and qualified medical students (elective).  
 Lecture course on the science of nutrition. Prerequisite: Biochemistry  
 114 or 222. Wed., 5:00 P.M.
- 404 *Applied Nutrition (1)* Sebrell  
 For senior medical students and graduate students. Lecture course  
 upon dietary requirements, deficiency diseases, and therapeutic diets.  
 Prerequisite: Biochemistry 114 or 222. Tuesday, 8:00 A.M.

\* On military leave 1943-44.

## DERMATOLOGY AND SYPHILOLOGY

Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology, Executive Officer*

Russell Joseph Fields, B.S., M.D., *Assistant Clinical Professor of Dermatology and Syphilology*

George William Creswell, A.B., M.D., *Associate in Dermatology and Syphilology*

Hayden Kirby-Smith, B.S., M.D., *Associate in Dermatology and Syphilology*

Leon Hugh Warren, A.B., M.D., M.S. in Med., *Clinical Instructor in Dermatology and Syphilology*

Adolph Rostenberg, Jr., A.B., M.D.C.M., *Clinical Instructor in Dermatology and Syphilology*

313-14 *Dermatology and Syphilology* Anderson  
Lectures on diseases of the skin and syphilis. One hour a week.

316 *Neurosyphilis* The Staff  
Lectures, clinical demonstrations, and practical diagnostic and therapeutic procedures. One hour a week for eight weeks.

317-18 *Clinic* The Staff  
Case demonstrations, diagnosis, and treatment of skin diseases and syphilis. Three hours a week. Gallinger Hospital.

407-8 *Clinic* Anderson  
Dermatology and syphilology in infants and children. Children's Hospital. Two hours a week.

409-10 *Clinic* Anderson  
Clinical demonstration, diseases of the skin. One hour a week. Emergency Hospital.

411-12 *Clinic* The Staff  
Clinical demonstrations, diseases of the skin, and diagnosis and therapy of syphilis. One hour a week. University Hospital.

413-14 *Clinic* Creswell  
Diagnosis, laboratory procedures, and treatment of syphilis. Two hours a week. Southwest Health Center.



## MEDICINE

- Walter Andrew Bloedorn, A.M., M.D., *Professor of Medicine, Executive Officer*
- Coursen Baxter Conklin, A.M., M.D., *Clinical Professor of Medicine*
- Charles Robert Lee Halley, A.B., M.D., *Clinical Professor of Medicine*
- Paul Frederick Dickens, M.D., *Clinical Professor of Medicine*
- Harry Filmore Dowling, A.B., M.D., *Clinical Professor of Medicine*
- Charles Powell Cake, M.D., *Adjunct Clinical Professor of Medicine*
- Robert Port Herwick, Ph.D., M.D., LL.D., *Adjunct Clinical Professor of Medicine*
- Frank Adelbert Hornaday, M.S., M.D., *Associate Clinical Professor of Medicine*
- Walter Kendall Myers, B.S., M.D., *Assistant Clinical Professor of Medicine*
- John Alton Reed, A.B., M.D., *Assistant Clinical Professor of Medicine*
- Clayton Bernard Ethridge, M.D., *Assistant Clinical Professor of Medicine*
- Watson William Eldridge, Jr., M.D., *Associate in Medicine*
- Maurice Protas, A.B., M.D., *Associate in Medicine*
- Bernard Lauriston Hardin, Jr., A.B., M.D., *Associate in Medicine*
- A. Fife Heath, M.D., *Associate in Medicine*
- Bernard Walter Leonard, B.S., M.D., *Associate in Medicine*
- Benjamin Manchester, M.D., *Associate in Medicine*
- Malcolm Foster Lent, M.D., *Associate in Medicine*
- Nicholas Athanasiou Mandelos, M.D., *Clinical Instructor in Medicine*
- Leo T. Brown, M.D., *Clinical Instructor in Medicine*
- Richard Bernard Castell, A.B., M.D., *Clinical Instructor in Medicine*
- George Paul Lemeschewsky, A.B., M.D., *Clinical Instructor in Medicine*
- Charles Troll Carroll, A.B., M.D., *Clinical Instructor in Medicine*
- John Ellsworth Everett, A.B., M.D., *Clinical Instructor in Medicine*
- Paul Abraham Lichtman, M.D., *Clinical Instructor in Medicine*
- John Bayne Marbury, M.D., *Clinical Instructor in Medicine*
- Gilbert Britt Rude, M.D., *Clinical Instructor in Medicine*
- Charles Noble Lewis, B.S., M.D., *Clinical Instructor in Medicine*
- Simon Weiner, B.S., M.D., *Clinical Instructor in Medicine*
- Louis Ross, M.D., *Clinical Instructor in Medicine*
- Irving Wolfe Winik, M.D., *Clinical Instructor in Medicine*
- William Kirkman Billingsley, Jr., A.B., M.D., *Clinical Instructor in Medicine*
- Carl Calvin Dauer, A.B., M.D., M.P.H., *Clinical Instructor in Medicine*
- Charles Randolph Hughes, M.D., *Clinical Instructor in Medicine*

John Edward Morris, M.D., *Clinical Instructor in Medicine*  
 Russell Crandle Payne, A.B., M.D., *Clinical Instructor in Medicine*  
 Lawrence Elias Putnam, A.B., M.D., *Clinical Instructor in Medicine*  
 Ruth Benedict, A.B., M.D., *Clinical Instructor in Medicine*  
 James Theodore Burns, M.D., *Clinical Instructor in Medicine*  
 Saiyude Dithakar Bhakdi, A.B., M.D., *Clinical Instructor in Medicine*  
 Frederic Dunbar Chapman, A.B., M.D.C.M., *Clinical Instructor in Medicine*  
 Meredith Benjamin Hesdorffer, B.S., M.D., *Clinical Instructor in Medicine*  
 Irvin Kerlan, B.S., M.D., C.P.H., *Clinical Instructor in Medicine*  
 Alan Frank Kreglow, B.S., M.D., *Clinical Instructor in Medicine*  
 Leon Schwartz, A.B., M.D., M.P.H., *Clinical Instructor in Medicine*  
 Robert George Taylor, B.S., M.D., *Clinical Instructor in Medicine*  
 Lawrence Jay Thomas, B.S., M.D., *Clinical Instructor in Medicine*

- 126 *History of Medicine* Halley  
 One hour a week.
- 241-42 *Physical Diagnosis* Conklin and Staff  
 Demonstrations and practice on the normal and abnormal subject; designed to cover the entire subject of physical diagnosis.
- 244 *General Medicine* Bloedorn, Halley  
 Lectures covering general aspects of all phases of medical disease, and including therapeutics. Three hours a week.
- 312 *Radiology and Radiotherapy* The Staff  
 One hour a week.
- 324 *Clinical Physiology* Dickens  
 Lectures and clinics for the correlation of preclinical and laboratory studies of physiology with altered function as observed in clinic and ward. One hour a week.
- 325-26 *Clinical Clerkship* Dowling and Staff  
 Individual case work under strict supervision (student's histories generally accepted as hospital records). Emergency and Gallinger Hospitals.
- 327-28 *Clinical Pathological Conference* Bloedorn, Choisser  
 Required in the third and fourth years. Correlation of clinical and post-mortem findings: detailed case descriptions from the clinical point of view, followed by thorough demonstrations, grossly and with lantern slides, of post-mortem findings. One hour a week.
- 349-50 *Grand Ward Rounds* Bloedorn and Staff  
 Conducted weekly at Gallinger Hospital. Cases are presented at this conference by members of the Resident Staff and Visiting Staff.

- 416 *Tropical Medicine* The Staff  
Lectures, laboratory exercises, museum and clinical demonstrations designed to familiarize the student with problems of tropical medicine, particularly as applied to the present emergency. Two hours a week.
- 417-18 *Physiotherapy* Eldridge  
Lectures and demonstrations of the fundamentals of physical treatment and their applications to general medical diseases. St. Elizabeths Hospital.
- 420 *Medical Jurisprudence* Eldridge  
Lectures on the legal and ethical rights of physicians, and on the legal problems with which the physician is brought into contact. One hour a week for eleven weeks.
- 421-22 *Dispensary Clinics* The Staff  
Thorough study of individual cases subsequently reviewed in detail by the Staff. The University and Emergency hospitals.
- 424 *Clinics* Bloedorn and Staff  
Etiology, diagnosis, and treatment of the usual and more rare diseases, with special emphasis on differential diagnosis and the demonstration of clinical abnormalities found in various morbid processes. Medical School.
- 425-26 *Clinical Clerkship* Dickens, Halley  
Individual case work under strict supervision (student's histories generally accepted as hospital records). The University and Emergency hospitals.
- 440 *Clinical Pharmacology* Herwick  
Brief review in materia medica, prescription writing, and the fundamentals of therapeutics; discussion of the pharmacological basis of therapeutics.
- 498 *Professional Aspects of Military Medicine* The Staff  
Study of problems arising in civilian, industrial, and military life peculiar to the present emergency; lectures by members of the staff and specialists of the Army, the Navy, and the United States Public Health Service on duty in Washington. Two hours a week.

## MILITARY SCIENCE AND TACTICS

Philip Weatherly Huntington M.D., Colonel, Medical Corps, United States Army, *Professor of Military Science and Tactics*

Clarence Quinter Bunderman, Sergeant, United States Army, *Instructor in Military Tactics*

129-30 *Basic Course (First Year)*

Huntington

Local basis of national defense; organization of the Army and the Medical Department; military law and courts-martial; customs of the service; map reading; military administration.

247-48 *Basic Course (Second Year)*

Huntington

Organization and operation of the Medical Department with the Arms; combat orders and problems; map exercises; medical service of Infantry and Cavalry divisions.

329-30 *Advanced Course (First Year)\**

Huntington

Mess management; military preventive medicine; sanitation; chemical warfare, tactics, defense, and medical aspects.

429-30 *Advanced Course (Second Year)\**

Huntington

Military history; leadership; diseases peculiar to war; organization and equipment within the division; mobilization; property accounting.

\* Students in the first and second year of the advanced course are selected from those who have satisfactorily completed the basic course.



## NEUROLOGY

Walter Freeman, Ph.D., M.D., *Professor of Neurology, Executive Officer*

James Winston Watts, B.S., M.D., *Associate Clinical Professor of Neurosurgery*

Alexander Simon, A.B., M.D., *Associate in Neurology*

Robert Henry Groh, B.S., M.D., *Clinical Instructor in Neurology*

Mortimer Ostow, A.M., M.D., *Clinical Instructor in Neurology*

### 249 *Neurology (elective)*

Freeman

Methods of study of the nervous system. Gross and microscopic dissections, embryology, comparative anatomy, stimulation and extirpation, human pathology, etc. Laboratory demonstrations. One hour a week.

### 250 *Neuropathology (elective)*

Freeman

Pathology of the nervous system with laboratory demonstrations. One hour a week.

### 331 *Neurology*

Watts, Simon, Ostow

Systematic lectures with lantern slides illustrating the chief neurologic syndromes and their anatomic bases. One hour a week.

### 333-34 *Neurology Clinic (elective)*

Freeman and Staff

May be elected in the third or fourth year. Neurological outpatient clinic. Consultation of staff on ambulatory cases, demonstration of diagnostic procedures, disposition of neuropsychiatric cases. Three hours a week.

### 335-36 *Neurologic Conference*

Freeman and Staff

Weekly staff conference at Gallinger Municipal Hospital covering interesting problems from the Neurologic Service. One fourth of the class for one and one-half hours a week.

### 383-84 *Ward Neurology*

Groh

Daily rounds and frequent assignments at Gallinger Municipal Hospital Neurologic Service. Each student works up a number of cases during his service. One eighth of the class for four weeks.

### 431 *Neurosurgery (elective)*

Watts

Lectures and clinical demonstrations in surgery of the brain, spinal cord, and peripheral nerves. Emphasis is laid upon fundamentals and upon the possibilities of surgery in the relief of symptoms. One hour a week.

433-34 *Clinical Neurology*

Freeman

Lectures and demonstrations of patients illustrating the diagnosis and treatment of nervous disorders. Material is available at St. Elizabeths Hospital illustrative of the more common disorders and some of the unusual syndromes. One hour a week.

435-36 *Neurologic Examinations*

Freeman and Staff

Practical instruction in the examination of patients presenting nervous diseases. Detailed examination of six patients is required of each student. St. Elizabeths Hospital. One fourth of the class, two hours a week.

## OBSTETRICS AND GYNECOLOGY

- Howard Francis Kane, A.B., M.D., *Professor of Obstetrics and Gynecology, Executive Officer*
- Radford Brown, M.D., *Professor of Obstetrics and Gynecology*
- Elijah White Titus, Phar.D., M.D., *Clinical Professor of Obstetrics and Gynecology*
- Jacob Kotz, M.D., *Clinical Professor of Obstetrics and Gynecology*
- Henry Lauran Darner, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*
- Herbert Percy Ramsey, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*
- John Louis Parks, M.S., M.D., *Adjunct Clinical Professor of Obstetrics and Gynecology*
- William Preston Haynes, A.B., M.D., *Associate in Obstetrics and Gynecology*
- George Nordlinger, A.B., M.D., *Associate in Obstetrics and Gynecology*
- William Raymond Thomas, M.D., *Associate in Obstetrics and Gynecology*
- Joseph Harris, A.B., M.D., *Associate in Obstetrics and Gynecology*
- Laurence Lee Cockerille, M.D., *Associate in Obstetrics and Gynecology*
- Samuel Mayer Dodek, A.M., M.D., *Associate in Obstetrics and Gynecology*
- Bernard Notes, M.D., *Associate in Obstetrics and Gynecology*
- Russell John Jansen, M.D., *Associate in Obstetrics and Gynecology*
- Helen Gladys Kain, B.S., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Esther Alsylvia Nathanson, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Katherine Elizabeth Parker, A.M., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Harry Samuel Douglas, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Howard Pope Parker, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Roger O'Donnell, Jr., A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- William Dandridge Terrell, Jr., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- James Albert Dusbabek, M.D., *Clinical Instructor in Obstetrics and Gynecology*

Barton Winters Richwine, M.D., *Clinical Instructor in Obstetrics and Gynecology*

Julius Robert Epstein, M.D., *Clinical Instructor in Obstetrics and Gynecology*

Morton Selwyn Kaufman, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*

Floyd Sterling Rogers, Jr., M.D., *Clinical Instructor in Obstetrics and Gynecology*

Samuel Hazen Shea, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*

Clarence Kendall Fraser, Ph.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*

253-54 *Pregnancy, Normal and Abnormal* Dodek, O'Donnell  
Lectures and recitations on the physiology and management of pregnancy and its complications. One hour a week.

337-38 *Labor, Normal and Abnormal* Kane, Nordlinger  
Lectures, recitations, and demonstrations on the mechanism and course of labor and its complications. Two hours a week.

344 *Gynecology* Brown  
Lectures on the principles of gynecological surgery. One hour a week for seven weeks.

345-46 *Manikin Demonstrations* Harris  
The mechanism of labor and various types of operative delivery demonstrated to sections of the class. One hour a week.

439 *Gynecological Pathology (elective)* Brown  
Lectures on the essentials of gynecological pathology, and demonstrations and study of gross and microscopic material discussed in the lectures. One hour a week.

441-42 *Clinical Obstetrics* The Staff  
Observation of, and participation in, the work of the pre- and post-natal clinics, on the wards, and in the delivery rooms of the University, Gallinger, Columbia, and Garfield hospitals.

443-44 *Clinical Gynecology* The Staff  
Observation of, and participation in, the work at the out-patient clinics, on the wards, and in the operating rooms of the University, Gallinger, Columbia, and Garfield hospitals.

445 *Female Endocrinology and Operative Gynecology* Kotz, Darner  
Lectures on the physiology and pathology of the endocrine system in women and on the principles of gynecological surgery. One hour a week.



## OPHTHALMOLOGY

- William Thornwall Davis, M.D., *Professor of Ophthalmology, Executive Officer*  
Ernest Alfred Watson Sheppard, M.D.C.M., *Associate Clinical Professor of Ophthalmology*  
Edgar Leonard Goodman, M.D., M.M.S., *Assistant Clinical Professor of Ophthalmology*  
Ronald Atmore Cox, A.B., M.D., *Assistant Clinical Professor of Ophthalmology*  
Frank Duncan Costenbader, B.S., M.D., *Associate in Ophthalmology*  
Walter Joseph Romejko, B.S., M.D., *Clinical Instructor in Ophthalmology*  
Sterling Bockoven, M.D., *Clinical Instructor in Ophthalmology*  
Carmon Robert Naples, B.S., M.D., *Clinical Instructor in Ophthalmology*  
Richard Wallace Wilkinson, A.B., M.S., M.D., *Clinical Instructor in Ophthalmology*

### 351-52 *Ophthalmology*

Davis and Staff

A lecture course presenting the principles of ophthalmology, with special reference to topics of importance to the general practitioner. One hour a week for twenty weeks.

### 447 *Clinic*

Davis and Staff

Intensive training in diseases of the eye; etiology, diagnosis, and treatment in their application to clinical cases. Episcopal Hospital. Three hours twice a week.

## OTO-RHINO-LARYNGOLOGY

- Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology*  
*Executive Officer*
- William Herndon Jenkins, M.D., *Clinical Professor of Oto-rhino-laryngology*
- Leroy Lee Sawyer, Jr., A.B., M.D., *Assistant Clinical Professor of Oto-rhino-laryngology*
- David Davis, A.B., M.D., *Associate in Oto-rhino-laryngology*
- Don R. Johnson, LL.B., M.D., *Associate in Oto-rhino-laryngology*
- Aubrey David Fischer, M.D., *Clinical Instructor in Oto-rhino-laryngology*
- Jeter Carroll Bradley, M.D., *Clinical Instructor in Oto-rhino-laryngology*
- Lyman Brooke Tibbetts, Phar.D., M.D., *Clinical Instructor in Oto-rhino-laryngology*
- Joel Norton Novick, M.S., M.D., *Clinical Instructor in Oto-rhino-laryngology*
- John Gordon Bell, M.D., *Clinical Instructor in Oto-rhino-laryngology*
- Catharine Birch, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*
- Homer King Vann, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*

- 451 *Oto-rhino-laryngology* Moffett, Jenkins  
 Lectures and demonstrations on anatomy, physiology, and diseases of the ear, nose, and throat, bronchoscopy and esophagoscopy. Two hours a week.
- 454 *Bronchoscopy* Davis  
 A series of lectures on the fundamental principles and the use of instruments, including both the bronchoscope and esophagoscope. One hour a week for eight weeks.
- 456 *Clinic* The Staff  
 Practical clinical instruction in the diagnosis and treatment of diseases of the ear, nose, and throat. Episcopal Hospital. One and one-half hours twice a week.

## PATHOLOGY

Roger Morrison Choisser, B.S., M.D., *Professor of Pathology, Executive Officer*

Thomas Martin Peery, A.B., M.D., *Associate Professor of Pathology*

Pearl Holly, M.S., M.D., *Associate in Pathology*

Eugene Leonard Lozner, A.B., M.D., *Associate in Pathology*

Richard Edward Kelso, M.D., *Instructor in Pathology*

### 236 *Clinical Pathology*

Choisser and Staff

Lectures and Laboratory work covering aspects of laboratory diagnosis of disease, including a study of: urinalysis, blood counting, the anemias, leukemias, and other blood dyscrasias. Examination of exudates, transudates, stomach contents, spinal fluids, and stools also emphasized. Three hours a week.

### 259-60 *Pathology*

Choisser, Peery

Malformations, inflammations, degenerations, and neoplasms; special pathology of the organs and specific diseases. The laboratory work consists of the gross and microscopic study of diseased tissues. Necropsies are held regularly at the University and Municipal hospitals.

### 307 *Necropsy (elective)*

The Staff

Students assist in the performance of necropsies. Fresh gross specimens and microscopic sections from each case are presented at weekly conferences. Current literature relating to cases is reviewed and presented by the students.

### 327-28 *Clinical Pathological Conference*

Choisser, Bloedorn

Required in the third and fourth years. Case histories are presented and discussed by members of the staff and student body; necropsy and clinical findings are compared, and gross and microscopic specimens examined. One hour a week.

### 460 *Research*

Hours and credits to be arranged.

Choisser

### 461 *Tumors*

Choisser and Staff

Sixteen lectures and laboratory periods covering experimental production of tumors by means of carcinogens. Microscopic diagnosis of tumors is stressed. One hour a week.

## PEDIATRICS

Harry Hampton Donnally, A.M., M.D., *Professor of Pediatrics, Executive Officer*

Preston Alexander McLendon, B.S., M.D., *Clinical Professor of Pediatrics*

Charles Aurelius Schutz, M.D., *Clinical Professor of Pediatrics*

Margaret Mary Nicholson, A.B., M.D., *Clinical Professor of Pediatrics*

Edward Lewis, M.D., *Clinical Professor of Pediatrics*

Lewis Kaigler Sweet, A.B., M.D., *Adjunct Clinical Professor of Pediatrics*

Elizabeth Emery Chickering, A.B., M.D., *Associate in Pediatrics*

Aaron Nimetz, A.B., M.D., *Associate in Pediatrics*

William Staton Anderson, A.B., M.D., *Associate in Pediatrics*

Mabel Harlakenden Grosvenor, A.B., M.D., *Associate in Pediatrics*

John Augustine Washington, A.B., B.S., M.D., *Associate in Pediatrics*

Carolyn Snyder Pincock, A.B., M.D., *Clinical Instructor in Pediatrics*

Richard Henry Todd, A.B., M.D., *Clinical Instructor in Pediatrics*

Dorothy Steidle Jaeger, M.D., *Clinical Instructor in Pediatrics*

Herbert Harold Diamond, M.D., *Clinical Instructor in Pediatrics*

### 354 *Pediatrics*

Nicholson

Ward walks and weekly clinic. Gallinger Hospital. Two sections.

### 355-56 *Pediatrics*

Schutz

Lectures on diseases and malformations of the newly born. Growth, metabolism, nutrition, nutritional diseases, therapeutics, habits, preventive pediatrics, and social aspects are considered. One hour a week for twenty-four weeks.

### 357-58 *Clinic*

Pincock

Clinical instruction in the care and diseases of the newly born, congenital malformations, birth injuries, and prematurity. Gallinger Hospital. One fourth of the class, one hour a week.

### 359-60 *Contagious-Disease Clinic*

The Staff

Bedside instruction in scarlet fever, diphtheria, etc. Gallinger Hospital. One fourth of the class, one hour a week. Ward walks twice a week.

### 463-64 *Child-Welfare and Preventive Clinic*

Schutz

Clinical course in the infant and the pre-school child. Children's Hospital, Child Welfare Center. One section, one hour a week.

### 465-66 *Clinic*

The Staff

Out-patient clinic: minor to serious disorders of children, emotional life of the child, habit formations, and behavior problems. Children's Hospital. One section, Mon., Tues., Wed., and Fri., one and one-half hours.



467-68 *Clinic*

Teaching clinic. Children's Hospital. Entire class, one and one-fourth hours a week. Donnally

469-70 *Clinical Clerkship*

Ward walks, physical diagnosis, pediatric procedures, bedside instruction in contagious diseases, laboratory and necropsy instruction, diagnosis of urgent cases. Children's Hospital. One fourth of the class. The Staff  
Mon., Tues., Wed., and Fri., 9:30 A.M. to 4:30 P.M.

471-72 *Allergy Clinic*

Donnally  
Prerequisite: Bacteriology 209. Practical work in the Allergy Clinic of Children's Hospital may be obtained by a small group of senior students. Two afternoons a week.

## PHARMACOLOGY AND THERAPEUTICS

George Byron Roth, A.B., M.D., *Professor of Pharmacology, Executive Officer*

Edgar William Ligon, Jr., Ph.D., *Assistant Professor of Pharmacology*

Edward Leong Way, Ph.D., *Instructor in Pharmacology*

- |     |   |                |
|-----|---|----------------|
| 263 | <i>Pharmacology</i>   | Roth and Staff |
|     | Laboratory instruction covering both the chemical nature and the biological effects of drugs. Five hours a week.  |                |
| 265 | <i>Pharmacology</i>   | Roth           |
|     | Lectures and demonstrations to correlate the most prominent facts relating to the more important therapeutic agents. Drugs found in the <i>United States Pharmacopoeia</i> and <i>New and Non-official Remedies</i> are stressed. Three hours a week. |                |
| 267 | <i>Pharmacology Conference</i>  | Roth and Staff |
|     | One hour a week.  |                |
| 269 | <i>Prescription Writing</i>   | Roth           |
|     | Sixteen one-hour conferences on the form of the prescription, with practical exercises.   |                |
| 362 | <i>Research</i>   | Roth and Staff |
|     | Hours and credits to be arranged.   |                |

## PHYSIOLOGY

Errett Cyril Albritton, A.B., M.D., *Professor of Physiology, Executive Officer*

Chester Elwood Leese, Ph.D., *Associate Professor of Physiology*

Robert Custis Grubbs, M.S., M.D., *Assistant Professor of Physiology*

Alma Fogelberg, Ph.D., *Instructor in Physiology*

### 115 *Physiology* (3)

Leese and Staff  
Lectures for academic students covering the fundamentals of physiology in its various subdivisions. Prerequisite: one year of general science or one semester of a biological science. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Tues. and Thurs., 5:10 to 6:25 P.M.

### 117 *Physiology* (1)

Fogelberg, Grubbs  
Laboratory exercises in the fundamentals of physiology, for academic students. Prerequisite: Physiology 115 or the equivalent. The two, 115 and 117, may be taken concurrently. Sat., 10:10 A.M. to 1:00 P.M.

### 132 *Physiology*

Albritton and Staff  
Sixteen physiological lectures in each of the following divisions, each as a unit: (1) blood, heart, circulation, respiration, and acid-base balance; (2) nutrition, digestion, metabolism, excretion, temperature regulation, and water balance; (3) sensory reception, central nervous processes, and somatic and visceral motor activity; (4) the endocrine glands and reproduction.

### 134 *Experimental Physiology*

Albritton and Staff  
Laboratory work in each of the divisions listed in Physiology 132. Nine hours a week.

### 200 *Physiology of Activity* (1 or 2)

Albritton  
The circulatory, respiratory, endocrine, metabolic, and other adaptations, immediate and long term, accompanying activity. May be taken for two credits with additional work. Prerequisite: Physiology 115 or the equivalent. Tues., 9:10 A.M.

### 269-70 *Problems in Physiology*

Hours and credits to be arranged.

Albritton and Staff

### 272 *Experimental Method*

Albritton  
Design of controlled experiments in medical or biological investigation, errors in design, critical and judgment of evidence, and tests of the statistical significance of experimental results. May be taken for one credit with additional work. Eight lectures, hours to be arranged.

### 274 *The Psycho-Physiology of Personality*

Leese  
Lectures on the genesis and expression of personality, with emphasis on the physiological approach. May be taken for one credit with additional work. Eight lectures, hours to be arranged.

### 275-76 *Research*

Hours and credits to be arranged.

Albritton and Staff

## PSYCHIATRY

Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry, Executive Officer*

Roscoe Willis Hall, Ph.B., M.D., *Clinical Professor of Psychiatry*

John Edward Lind, M.D., *Clinical Professor of Psychiatry*

Solomon Katzenelbogen, M.D., *Clinical Professor of Psychiatry*

Harriet Elizabeth Twombly, A.B., M.D., *Associate in Psychiatry*

Addison McGuire Duvall, M.D., *Associate in Psychiatry*

Samuel Alexander Silk, Ph.G., M.D., *Associate in Psychiatry*

Edgar Deucher Griffin, A.B., M.D., *Associate in Psychiatry*

Paul Jacob Ewerhardt, M.D., *Clinical Instructor in Psychiatry*

Isabelle Kendig, Ph.D., *Clinical Instructor in Psychiatry*

### 136 *Introductory Medical Psychology* Lind

Theoretical and practical aspects of the constitution, character, and personality as related to Medicine: psychological features in various diseases: types of character development and their ways of adaptation. One hour a week.

### 278 *Psychopathology* Hall

Manifestations and understanding of various abnormal mental mechanisms and reaction-types, illustrated with suitable case material, and preceded by history of development of psychopathology. One hour a week.

### 366 *Psychiatry* Overholser

Major psychoses, illustrated by the presentation of clinical material and utilized for the purpose of explaining the fundamental psychological mechanisms involved. St. Elizabeths Hospital. One hour a week.

### 368 *Psychosomatic Aspects of General Medicine* Katzenelbogen

Somatic disorders of functional origin versus organic structural disorders. The role of personality reactions in somatic disorders (illustrative cases). Gallinger Hospital. One hour a week.

### 370 *Personality Adjustments* Ewerhardt

Maladaptations occurring in childhood and youth. One hour a week for eight weeks.

### 427-28 *Psychological Techniques in Psychiatric Practice* Kendig

Discussion of psychological concepts and tools available for determination of intellectual level, personality structure, functional impairment, and chronic deterioration. One hour a week for four weeks.



**473-74 Ward Work**

Personal mental examinations and formal written report of the examination of the various types of psychosis, followed by a review of the cases with an instructor. St. Elizabeths Hospital. Two hours a week. The Staff

**475 Psychoneurosis**

The clinical aspects, the etiology, the psychopathology, and the treatment of the various psychoneuroses. St. Elizabeths Hospital. One hour a week for twelve weeks. Lind

## SURGERY

- Charles Stanley White, M.D., *Professor of Surgery, Executive Officer*  
 \*Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
 Harry Hyland Kerr, M.D.C.M., *Clinical Professor of Surgery*  
 Paul Stirling Putzki, M.D., *Clinical Professor of Surgery*  
 Arch Lockhart Riddick, B.S., M.D., *Clinical Professor of Surgery*  
 William Berry Marbury, M.D., *Clinical Professor of Surgery*  
 Custis Lee Hall, M.D., *Clinical Professor of Surgery*  
 Guy Whitman Leadbetter, B.S., M.D., *Clinical Professor of Surgery*  
 James Ross Veal, B.S., M.D., *Adjunct Clinical Professor of Surgery*  
 \*John Hugh Lyons, M.S., M.D., *Associate Clinical Professor of Surgery*  
 Herbert Hermann Schoenfeld, M.D., *Associate Clinical Professor of Surgery*  
 \*William Warren Sager, M.S., M.D., *Associate Clinical Professor of Surgery*  
 Francis Xavier McGovern, M.D., *Associate Clinical Professor of Surgery*  
 Benjamin Franklin Dean, Jr., M.S., M.D., *Assistant Clinical Professor of Surgery*  
 Alec Horwitz, M.S., M.D., *Assistant Clinical Professor of Surgery*  
 Cline N. Chipman, M.D., *Associate in Anesthesia*  
 Richard Knight Thompson, D.D.S., *Associate in Dental Surgery*  
 Julius Salem Neviaser, A.B., M.D., *Associate in Surgery*  
 James Lloyd Collins, A.B., M.D., *Associate in Surgery*  
 Donald Harrison Stubbs, A.M., M.D., *Associate in Surgery*  
 Edward Alexander Cafritz, M.D., *Clinical Instructor in Surgery*  
 Hazen Eugene Cole, B.S., M.D., *Clinical Instructor in Surgery*  
 Crenshaw Douglas Briggs, B.S., M.D., *Clinical Instructor in Surgery*  
 William Wiley Chase, A.B., M.D., *Clinical Instructor in Surgery*  
 William Ross Morris, M.D., *Clinical Instructor in Surgery*  
 Joseph Francis Conlon, D.D.S., *Clinical Instructor in Dental Surgery*  
 Otto Anderson Engh, A.B., M.D., *Clinical Instructor in Surgery*  
 Charles Seymour Coakley, M.D., *Clinical Instructor in Anesthesia*  
 Duane Case Richtmeyer, M.D., *Clinical Instructor in Surgery*  
 Stewart Maxwell Grayson, M.D., *Clinical Instructor in Surgery*  
 Jerome Blaine Harrell, M.D., *Clinical Instructor in Surgery*  
 Jacob Joseph Weinstein, B.S., Ph.G., M.D., *Clinical Instructor in Surgery*  
 Paula Reines Kaiser, M.B., Ch.B., *Clinical Instructor in Surgery*

\* On military leave 1943-44.

- 137 *First Aid* The Staff  
Lectures by the staff and practical exercises conducted by qualified Red Cross First Aid Instructors designed to enable the student to complete the "standard" course in First Aid and to appreciate the value and limitations of such training. One hour a week.
- 279-80 *General Surgery* Dean, Harrell  
Course of lectures and recitations covering surgical diseases of the neck and chest, herniae, amputations, and pre- and post-operative treatment. One hour a week for twenty-eight weeks.
- 281 *Anesthesia (elective)* Chipman  
Theoretical and practical instruction is given in the use of general and local anesthetic agents. One hour a week for nine weeks.
- 282 *Fractures and Dislocations* Leadbetter  
One hour a week.
- 283 *Surgical Technique* Marbury  
Series of demonstrations of surgical instruments and appliances. The preparation of the patient, the operating room, the materials commonly used, and the duties of each member of an operating team. One hour a week.
- 371-72 *General Surgery* Putzki, Riddick  
Course of lectures and recitations covering surgery as applied to the neck, thorax, gastro-intestinal tract, and the bones and skeletal muscles. One hour a week.
- 373-74 *Ward Walks* The Staff  
Well-organized group ward-rounds are made with the visiting physicians and their respective staffs in the course of their usual rounds. Gallinger and Emergency hospitals.
- 375-76 *Surgical Clinic* The Staff  
Clinical teaching and demonstrations on the care of the various surgical diseases, with special emphasis on the pre- and post-operative management. Gallinger and Emergency hospitals.
- 379-80 *Surgical Clinic* White and Staff  
Demonstration to the entire class of the various surgical diseases, with stress upon the differential diagnosis and pre- and post-operative care. Gallinger Hospital. One hour a week.
- 381-82 *Clinical Clerkship* The Staff  
The student is assigned and required to work up thoroughly the cases for diagnosis and treatment. Gallinger and Emergency hospitals.
- 478 *Orthopedics* Hall  
Etiology, pathology, symptomatology, and treatment of congenital and acquired diseases of the bones and joints, and the clinical instruction in treatment and in the use of appliances for the correction of deformities. One hour a week.
- 481 *General Surgery* White  
One hour a week.

- 483-84 *Dispensary Clinic* The Staff  
Dispensary instruction in the principles and practice of surgery. Instruction of small groups is given in general surgery and the specialties, including anesthesia, neurosurgery, orthopedics, proctology, and oral surgery. University and Emergency hospitals.
- 485-86 *Special Problems in Surgery* Riddick, Dean  
General surgical diagnosis, with special emphasis on the diagnosis and differential diagnosis of surgical diseases and post-operative complications. One hour a week.
- 488 *Surgical Clinic* White and Staff  
Demonstration to the entire class of the various surgical diseases. One hour a week.
- 489 *Surgical Anatomy* Horwitz  
One hour a week.



## UROLOGY

Frederick August Reuter, M.D., *Professor of Urology, Executive Officer*  
 Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
 Charles Perry Howze, M.D., *Associate in Urology*  
 Gilbert Ottenberg, A.M., M.D., *Clinical Instructor in Urology*  
 William Glenn Young, M.D., *Clinical Instructor in Urology*

### 491-92 *Urology*

Reuter

Lectures covering the entire field of urology, including diagnosis, treatment, and morbid pathology. One hour a week.

### 493-94 *Clinics*

The Staff

Clinical teaching and demonstrations on the care of urological cases, with special emphasis on the pre- and post-operative management. Operative clinics and clinical teaching. Gallinger and Children's hospitals.

### 495-96 *Clinics*

Reuter and Staff

Clinical demonstrations and teaching in the dispensary, with special attention given to diagnostic procedures. Emergency and University hospitals. One part of each section daily.

# DEGREES CONFERRED

## DOCTOR OF MEDICINE

JUNE 3, 1942

Agee, Fred Benson, Jr. A.B. 1939, The George Washington University	D.C.	Krucoff, Morris Edward B.S. 1917, The George Washington University	D.C.
Alden, Manning Wallace A.B. 1939, The George Washington University	Md.	Kurtz, Harold James A.B. 1918, The George Washington University	Wis.
Anderson, Gilbert Irenus A.B. 1939, The George Washington University	Iowa	Leftwich, William Burdette B.S. 1938, Hampden-Sydney College	W.Va.
Beall, John Arthur A.B. 1938, Ohio Wesleyan University	Ohio	MacPherson, Archibald Rich A.B. 1910, The George Washington University	Va.
Burleson, Paul Woodrow B.S. 1938, Birmingham Southern College	Ala.	Merrick, John Blake (With distinction)	Va.
Chaitin, Horace (With distinction)	N.Y.	A.B. 1938, Colgate University	D.C.
A.B. 1938, University of Michigan	Pa.	Michael, Morris Lewin (With distinction)	D.C.
Clateman, Arthur B.S. 1938, Wayne University	Calif.	A.B. 1918, Cornell University	D.C.
Collins, Mary Ellen	D.C.	Mincofsky, A. Burton A.B. 1918, The George Washington University	D.C.
Derrick, William Sheldon A.B. 1940, The George Washington University	D.C.	Morgan, Ivor Idris B.S. 1938, University of Washington	Wash.
Dunham, Jean Lavell	D.C.	Obenschain, John Teaford B.S. 1937, Roanoke College	Va.
Elliott, John Palmer	N.C.	Parker, Samuel Lester, Jr. A.B. 1918, University of North Carolina	N.C.
A.B. 1938, University of North Carolina	Panama	Robertson, Duncan A.B. 1918, Stanford University	Alaska
Fabrega, Ignacio B.S. 1935, La Salle College	D.C.	Robertson, William Whalen A.B. 1918, University of Rochester	N.Y.
Footer, Marvin Peace A.B. 1938, The George Washington University	N.J.	Rodgers, George Marion, Jr. B.S. 1938, Howard College	Ky.
Frankel, Theodore H. A.B. 1938, The George Washington University	Va.	Schulman, Cyril Augustus B.S. 1938, The George Washington University	D.C.
Gilliland, Norman Ambrose A.B. 1939, The George Washington University	D.C.	Silverstone, Felix Abraham Torrey, Kaden A.B. 1938, The George Washington University	D.C. W.Va.
Goumas, Marcus Peter A.B. 1938, The George Washington University	D.C.	Travers, Frank Anthony Warner, Henry George A.B. 1939, The George Washington University	N.Y. D.C.
Greenberg, Arnold Sidney	S.D.	Wallace, Charles James, Jr. A.B. 1937, Stanford University	Calif.
Hamm, Joseph Nicholas B.S. 1942, Creighton University	N.C.	Weiner, Herman Robert B.S. 1938, College of William and Mary	N.J.
Highsmith, Charles, Jr. B.S. 1938, Wake Forest College	Conn.	White, Charles Stanley, Jr. B.S. 1917, Harvard University	D.C.
Hornisher, Charles John	D.C.		
Jarboe, Louise B.S. 1937, The George Washington University	Conn.		
Kardys, Frederick Joseph	N.C.		
King, Robert William B.S. 1938, Wake Forest College			

FEBRUARY 22, 1943

Adams, Ralston Heberling	Md.	Bates, Harry Clark, Jr. B.S. 1939, University of Virginia	Va.
Amick, Frederick Eugene	W.Va.	Baxley, Benjamin Hood B.S. 1941, University of Washington	Wash.
Ammerman, Harvey H. B.S. 1939, The George Washington University	Conn.	Blundon, Kenneth Edwin Borum, Bruce Hawthorne A.B. 1941, The George Washington University	D.C. Ind.
Barton, William Karl B.S. 1939, Boston University	Fla.	Brotman, Alfred Bernard	D.C.



# STUDENTS REGISTERED IN THE SCHOOL OF MEDICINE

1942-43

## A

Adams, George David  
A.B. 1941, The George Washington University  
Adams, Howard Dwight  
A.B. 1941, Miami University  
Adams, Roderick Robertson  
Adams, Samuel Webster, Jr.  
A.M.S., Leonard Carl  
A.B. 1941, The George Washington University  
Alden, Charles William  
A.B. 1941, Brown University  
Amick, Frederick Eugene  
Ammerman, Harvey Harold  
B.S. 1936, The George Washington University  
Anderson, William Lewis  
Anderson, Norman Peter  
Anderson, Don Everett  
A.B. 1941, The George Washington University  
Andrus, Lee Harold  
A.M.S., Rachel Linn  
Armstrong, Robert Hargan, Jr.  
Ashurst, Robert Turpin III  
A.B. 1941, University of Alabama  
Ayres, Marie Francis  
B.S. 1942, University of Pittsburgh

## B

Baker, Stewart Lee  
B.S. 1942, University of Maryland  
Baker, William Dillon  
Baker, Kenneth Clark  
Barker, Charles Paul  
A.B. 1941, University of Michigan  
Barnett, William Waldo  
Barnes, William Earl  
B.S. 1942, Boston University  
Bates, Harry Clark, Jr.  
B.S. 1942, University of Virginia  
Beverfield, Samuel Richard  
Bishop, Mark  
B.S. 1941, College of Idaho  
Bixley, Benjamin Harold  
B.S. 1941, University of Washington  
Birn, Harold Richard  
A.B. 1942, American University  
Birk, Robert Charles  
Berry, Gus Neill  
B.S. 1942, Northwestern University  
Berrie, Stephen Joseph  
Bingham, Myron Nelson  
B.S. 1942, University of Washington  
Black, Emile Arabelle  
B.S. 1942, The George Washington University  
Black, Edwin  
Blackhard, Cyrus Elwood  
Black, Benjamin Ralph  
B.S. 1940, Catholic University of America

D.C.

Ohio

Md.

D.C.

D.C.

D.C.

W.Va.

Conn.

D.C.

Calif.

Va.

Calif.

Penn.

D.C.

Ala.

Pa.

D.C.

Ariz.

Mich.

N.Y.

Utah

Fla.

Va.

Md.

Idaho

Wash.

D.C.

Ariz.

Mo.

N.Y.

D.C.

D.C.

N.Y.

Mass.

N.J.

Bloom, Gerald Barron  
A.B. 1940, University of California  
Blundon, Kenneth Edwin  
Bohrer, Charles Arnold  
Boling, John Stephen  
B.S. 1940, Roanoke College  
Borum, Bruce Hawthorne  
A.B. 1941, The George Washington University  
Bovd, William Dunbar  
Brodie, Sidney Irving  
A.B. 1940, Harvard University  
Bromberg, Alfred Bernard  
Brown, Donald Painter  
A.B. 1942, West Virginia University  
Brown, Raymond Nathan  
Brownlee, Harrison James  
Burbeau, Caroline Frances  
B.S. 1938, College of William and Mary  
M.S. 1930, University of Maryland  
Bushner, Alexander  
A.B. 1940, Montemore College

Calif.

D.C.

Mo.

Va.

Ind.

D.C.

Mass.

D.C.

W.Va.

D.C.

N.Y.

N.Y.

N.Y.

Calif.

Calif.

## C

Cajigas, Tomas Robert  
Callan, Margaret Elizabeth  
A.B. 1942, The George Washington University  
Cameron, Joseph Harold  
B.S. 1938, University of North Carolina  
Campbell, Paul Stine  
Cannon, John Cunningham  
A.B. 1941, University of Utah  
Cannon, George Joseph  
A.B. 1942, Clark University  
Carter, John Paul  
Cass, Ernest Raymond, Jr.  
Carr, Quincey Jean  
B.S. 1942, University of Puerto Rico  
Cass, Nelson, Otis Herman  
Carr, Robert Norman  
B.S. 1941, Clarkson College  
Ceballos, Victor Portman  
Ceballos, Robert Leland  
A.B. 1941, University of California  
Cocklin, Cameron Baxter, Jr.  
A.B. 1942, McIntosh College  
Coffey, Joseph Augustine, Jr.  
Coffey, Robert Wade  
Coffey, Robert S.  
Coffey, George Thomas  
B.S. 1942, University of Idaho  
Coffey, William Doyle  
A.B. 1941, Boston Young University  
Coffey, Francis Joseph  
Coffey, Louis Anthony  
Coffey, Olin C., Jr.  
Cruise, Mary Ophelia  
A.B. 1939, University of Mississippi  
Curtis, Dock

D.C.

D.C.

N.C.

Calif.

Utah

Mass.

D.C.

Wyo.

P.R.

Wash.

D.C.

D.C.

Calif.

D.C.

P.I.

Mo.

D.C.

Idaho

Wyo.

D.C.

D.C.

D.C.

Mass.

N.Y.



## D

Dares, William Gerald	Ill.	Fegan, John Bernard	D.C.
Dances, Joseph Gordon	Idaho	Fink, William James	Ill.
B.S. 1939, Utah State Agricultural College		A.B. 1939, DePaul University	
Dais, Dana Rowland	Ohio	Fischer, Richard Henry	D.C.
A.B. 1941, Ohio University		B.S. 1939, The George Washington University	
Dake, Theodore Peck	D.C.	Forrest, Herbert Lee	Okla. Wis.
B.S. 1942, University of Wisconsin		Foster, Thomas Delos	
M.S. 1947, Michigan State College		A.B. 1941, University of Wisconsin	
Dalman, Charles Jose	P.R.	Francis, James Carrington	Ala.
A.B. 1942, The George Washington University		A.B. 1941, University of Alabama	
Davis, Harold Arthur	D.C.	Franklin, Joseph Dabbar III	D.C.
Davies, Glenn Orville, Jr.	Calif.	B.S. 1938, University of Maryland	
Davis, Andrew Paul, Jr.	Pa.	Frasqueri-Toste, Eduardo Rafael	P.R.
A.B. 1940, The George Washington University		Frazier, Donald Benjamin	D.C.
Dawson, Harry Walker	Calif.	Freehafer, Marian	D.C.
A.B. 1941, University of California		A.B. 1940, The George Washington University	
Deming, Ruth Elizabeth	D.C.	Friedrich, Fredrick Arthur	Ohio
A.B. 1942, Mount Holyoke College		A.B. 1943, Youngstown College	
Dennis, Alvin Barnes	N.C.		
B.S. 1944, University of North Carolina			
Dickert, John Paul	Pa.		
B.S. 1941, University of Pittsburgh			
Dillard, Alexander Burr	N.J.		
Dodman, Milton	N.Y.		
A.B. 1939, New York University			
Dorris, John Burton	Utah		
A.B. 1941, University of Utah			
Dougherty, James Michael	Mont.		
Dove, Samuel	D.C.		
B.S. 1936, Wilson Teachers College			
Dowd, James Francis	D.C.		
Dresser, Evelyn Edith	N.J.		
B.S. 1941, The George Washington University			
DuChes, John William	Ohio		

## E

Eastham, Edwin Marion	Va.		
Eisdahl, Robert Wilcox	D.C.		
Edwards, Benjamin Franklin II	D.C.		
Edwards, John Albert	Vt.		
A.B. 1940, The George Washington University			
Ellis, John Muret	Calif.		
A.B. 1942, Stanford University			
Ellsworth, Homer Smart	Ariz.		
B.S. 1942, University of Arizona			
Emerson, William Joseph	N.J.		
B.S. 1940, Catholic University of America			
Ester, Richard Lee	Tex.		
B.S. 1935, The Citadel			
A.B. 1947, University of Houston			
A.M. 1949, Baylor University			

## F

Fairchild, John Phillip	D.C.		
A.B. 1943, The George Washington University			
Fankhauser, Robert Kingsley	W.Va.		
B.S. 1941, Ohio University			
Farr, Keith Fred	Utah		
A.B. 1941, University of Utah			
Farrell, John Clifford	Oreg.		
A.B. 1940, University of Oregon			
Farrall, Joseph Peter	D.C.		
Fawcett, John Gray	N.J.		
A.B. 1940, Colgate University			

	G		
Garby, Rodes Carl	D.C.		
Gee, George Leonard	D.C.		
Geiger, Jason	D.C.		
Goldensohn, Sidney Sorrel	N.J.		
A.B. 1942, The George Washington University			
Goldstein, Herbert Harold	N.J.		
A.B. 1939, University of Michigan			
Goldstein, Norman Philip	N.Y.		
A.B. 1941, New York University			
A.M. 1942, The George Washington University			
Gonzalez, Rudolph Manuel	Calif.		
A.B. 1942, University of California			
Gordon, David Stuart	D.C.		
A.B. 1941, The George Washington University			
Graves, Richard Stebbins	Ohio		
A.B. 1940, Miami University			
Greaves, Howard Pendleton	Idaho		
B.S. 1942, University of Idaho			
Grieshaber, Louis Emil	Wis.		
Gunning, John Emmett	Utah		
	H		
Hamilton, Paul Key	Ala.		
B.S. 1942, Birmingham-Southern College			
Hardy, Frank McNairy	Wash.		
Hardy, William Hendricks	Wash.		
B.S. 1939, University of Washington			
Harris, Lester Friedrich	D.C.		
Hartssock, Frederick Burgess	D.C.		
Hawkins, Chet Fletcher	Calif.		
Hemaban, Thomas Alexander	N.J.		
Hether, Edward Paul	N.Y.		
Hendricks, Franklin D.	Utah		
B.S. 1939, Utah State Agricultural College			
Hill, Edward Crane	Idaho		
Hilbertman, Joel Bernard	Mass.		
A.B. 1940, The George Washington University			
Hoffman, Carl Joseph	Pa.		
B.S. 1942, Catholic University of America			
Hoffman, Richard Franklin	Calif.		
Hollander, Milton Henry	N.J.		
A.B. 1939, New York University			
Holmes, Isham Earl	Mo.		
Holmes, Joel Grant, Jr.	D.C.		

Hoover, George William, Jr. A.B. 1941, The George Washington University	D.C.	Kirstein, Stanley William A.B. 1940, The George Washington University	D.C.
Hopkins, George Jerome Hoppes, Emerson Eli B.S. 1940, Albright College	D.C. Pa.	Kleh, Jack Bernard A.B. 1942, The George Washington University	D.C.
Hoyle, John Decator B.S. 1940, University of North Carolina	N.C.	Kling, Suzanne Kaufman A.B. 1940, Smith College	N.Y.
Hughes, John Ames	D.C.	Knight, Raymond Lynn A.B. 1940, University of California	Calif.
Hunt, Robert Clarence B.S. 1942, Mount Saint Mary College	D.C.	Koch, Leslie Charles A.B. 1940, University of Utah	Utah
Hyde, Dean Low A.B. 1939, Fresno State College	Calif.	Kolker, Joseph A.B. 1942, The George Washington University	D.C.
I			
Ing, Robert Bowen	D.C.	Kolze, Vernon William B.S. 1941, Western Reserve University	Pa.
Irani, Ardeshir Behram, Jr.	D.C.	Kovach, Coleman William	Pa.
Irey, Robert Blair	D.C.	Kowalewski, Edward Joseph Kroutil, Ludwig Carl A.B. 1941, The George Washington University	Pa. Va.
J			
Jackson, Elvon Gee A.B. 1939, Brigham Young University	Utah	Kroutil, Persis Marti B.S. 1940, The George Washington University	Va. D.C.
Jaege, Henry William Jaggers, Frank Yewdall, Jr. B.S. 1939, Dickinson College	D.C. Md.	Kurland, Walter B.S. 1942, The George Washington University	D.C.
James, Burton Reed A.B. 1941, Fresno State College	Calif.	Kurstin, William A.B. 1942, The George Washington University	D.C.
Jankowski, Leo A.B. 1942, Ohio State University	Ohio	L	
Jarvis, Rodney Miller B.S. 1941, University of Washington	Wash.	Lande, Lester B.S. 1942, University of Michigan	N.Y.
Jasper, William Smith A.B. 1941, Ohio University	Ohio	Lane, Walter Harold, Jr.	Va.
Jeana, Howard Stafford	Ohio	Larsen, John David, Jr.	Md.
Jiménez-Torres, Carlos Federico	P.R.	A.B. 1940, Erskine College	Wash.
Johan, Morton	D.C.	Levin, Floyd Dale B.S. 1942, University of Washington	Ohio
Johnsen, David Strand	D.C.	Lewin, Walter Otto, Jr.	N.J.
Johnson, Clark Finnerud A.B. 1939; B.S. 1941, University of South Dakota	S.D.	Lifshutz, Seymour A.B. 1942, The George Washington University	Va.
Johnson, Donald Arthur Johnson, Linwood Hill A.B. 1942, Brown University	Wis. R.I.	Littleton, Louisa Chandler A.B. 1939, Emory and Henry College	N.Y. N.Y.
Johnson, Marbin Emerson A.B. 1941, Transylvania College	Ky.	Livingston, Samuel Lobb, Allan Wilbur	N.Y. Wash.
Johnson, William H. Joliet, John Charles	Va. Ohio	Loggins, James Elwyn, Jr.	D.C.
Jorney, Louis Marion B.S. 1940, University of Mississippi	Miss.	Long, James Walling Longley, Jay Rhodes A.B. 1942, Carleton College	D.C. Wis.
K			
Kagan, Harold Nathan A.B. 1942, The George Washington University	N.Y.	Loube, Samuel Dennis A.B. 1941, The George Washington University	D.C.
Kallin, Eloise Kjelhorn A.B. 1941, The George Washington University	D.C.	Lowe, Waynard Wilson B.S. 1942, University of Idaho	Idaho
Kartus, Beatrice June Kaufman, Irving A.B. 1939, New York University	D.C. N.J.	Lueth, Charles Salak B.S. 1937, University of Wisconsin	Wis.
Kelley, Floyd Carl Kelley, James Leo, Jr. A.B. 1940, University of California	Wash. Calif.	Lyons, David Robert	N.J.
Kimble, Seruch Titus, Jr. A.B. 1942, The George Washington University	D.C.	M	
Kinder, Edward Lewis, Jr.	D.C.	MacDonald, Gordon Rhodes B.S. 1939, University of Toledo	Ohio
King, Donald Perry	Ind.	MacDonald, Sally Steele A.B. 1940, The George Washington University	D.C.
Kirk, Daniel Lee	Pa.	MacRae, Malcolm Merritt Maguire, Joseph Patrick B.S. 1941, University of Washington	Ohio Wash.
Kirk, Donald Angus A.B. 1940, University of Utah	Utah	Makinson, James Thurston A.B. 1938, Stanford University	Calif.

## The George Washington University

Mantley, Charles Edwin	Ohio	Nicklin, Walter Shirley, Jr.	Va.
Masbie, George Herbert	Mass.	Ph.D. 1935; B.S. 1939, The George Washington University	
B.S. 1928, Michigan State College			
Matal, Stuart Henry	Wash.	Norris, Donald Arthur	N.Y.
Martin, Herbert Everard, Jr.	D.C.	A.B. 1942, University of Rochester	
B.S. 1932, Georgetown University		Norris, Ronald Frederick	Texas
Martinez, Robert Andrew, Jr.	D.C.	A.B. 1940, University of Texas	
M. Arts, Iowa B.	Utah	O	
A.B. 1941, Brigham Young University			
M. Cause, Raper and Adrian	Ms.	Ollert, Harry Dumant	Md.
B.S. 1941, University of Missouri		Olshaker, Bennett	D.C.
McCarthy, Robert Joseph	N.I.	P	
McCrea, John Wood	Mich.		
B.S. 1943, Marquette State College of Agriculture and Applied Science		Palfreyman, Jean Margaret	Wash.
McClellan, James Glezen	N.Y.	Palitta, Elizabeth Mary	Vt.
A.B. 1941, University of Buffalo		Palmer, Richard Emery	D.C.
McKee, Ernest Cuthbert, Jr.	Wash.	Panzer, Norman	N.J.
B.S. 1942, State College of Washington		A.B. 1941, New York University	
McKenny, Walter William	Okla.	Parkinson, Dee Rich	Utah
McLaine, Edward Maxwell	Calif.	Parsons, Alvin Edward	D.C.
B.S. 1942, University of Notre Dame		Parlow, Kenneth Lawrence	West.
McLure, John Joseph	Calif.	Parsons, Harold Eugene II	Ore.
B.S. 1942, University of Arizona		Paul, Joseph George	Ind.
McMullen, Donald Parley	Calif.	Paine, Martin Wallace	N.J.
McNorton, Elizabeth Holt	Pa.	A.B. 1937, New Jersey State Teachers College	
McNorton, Helen Paul, Jr.	Wash.	Peckham, Morris	N.Y.
McNorton, Charles Alexander, Jr.	Md.	A.B. 1941, The George Washington University	
McNorton, Samuel Anthony, Jr.	P.R.	Perkins, John Walter	D.C.
McNorton, And. Anne Victor	D.C.	Perkins, William Robert, Jr.	D.C.
University		A.B. 1940, Princeton University	
Medley, Harry	N.I.	Petersen, Roy Alvin	Idaho
Medley, Lowell Gier	Idaho	B.S. 1940, Utah State Agricultural College	
A.B. 1940, Stanford University			
Meier, Ralph Herbert, Jr.	D.C.	Phelck, Jack Douglas	Okla.
Meier, Max Stephen	Calif.	A.B. 1942, University of Oklahoma	
Meier, Frank Lewis	D.C.	Place, Charles Hyatt	N.Y.
Meier, Spencer Kelsey	Conn.	A.B. 1936, Colgate University	
A.B. 1942, Miami University		Phelan, Cornelius Levisius	Ore.
Meisner, Valdemar Moore	Me.	Pile, Samuel Boyce III	D.C.
Meisner, Edwin Colman	W.V.	A.B. 1941, University of Kentucky	
B.S. 1940, University of Wyoming		Pinkus, Leon R.	Okla.
Meisner, Robert Henry	Iowa	Pinner, Charles Delash	D.C.
Meisner, Robert Rose	D.C.	Pinner, Warren Galtrey	D.C.
Meisner, Walter Harvey, Jr.	Utah	Price, John Wellington	D.C.
A.B. 1937, Brigham Young University			
M. Arts, Penn.	Pa.	Q	
B.S. 1941, Dickinson College			
Mell, Howard Oles	N.Y.	Rabkin, Boris	N.Y.
A.B. 1941, Union College		A.B. 1939, New York University	
Mell, Herbert	D.C.	Randall, Harold Waxter	Okla.
A.B. 1937, University of Chicago		B.S. 1942, University of Oklahoma	
A.M. 1940, The George Washington University		Randall, Joseph Eugene	Md.
Melton, Robert A.	S.D.	B.S. 1942, Catholic University of America	
Melton, Noel	Mich.	Ray, Louis	D.C.
B.S. 1941, University of Michigan		B.S. 1941, University of Maryland	
Melton, James Kate	Idaho	Rea, Edward Luke	Calif.
B.S. 1941, University of Idaho		A.B. 1942, University of California	
Melton, Hans Benjamin	S.D.	Rea, Stephen Beal	Calif.
Murphy, Christopher Joseph, Jr.	D.C.	Rea, Joseph Cross	Conn.
		B.S. 1941, Catholic University of America	
N		Reitman, James Stuart	N.I.
Namias, Robert Morton	D.C.	B.S. 1938, New York University	
Nelson, Robert Oliver	Calif.	Reis, A. Solomon	N.J.
Nesselt, William Edward	D.C.	B.S. 1939, Yale University	
A.B. 1942, The George Washington University		Rosen, Emory & Turner	D.C.
Newell, Charles Carlin	Ohio	Rosen, Guy Adams	Utah
Newell, Henry Thomas	Md.	Rosenstein, John William	Wyo.
A.B. 1941, University of Alabama		B.S. 1941, University of Wyoming	
		Rover, Charles Oshorn	D.C.
		A.B. 1942, The George Washington University	



Rack, Rex Lewis	Okl.	Strout, Warren Greenleaf	Maine
Rae, Frank Sebastian	N.Y.	A.B. 1942, University of Maine	
A.B. 1942, Syracuse University		Swain, Garrett Michael	Me.
Rae, Johnnie Victor	D.C.	Swegart, Jack Eugene	Calif.
Rathus, Helen Edith	N.Y.	Sze, Kenneth Chin	China
A.B. 1937, University of Rochester		A.B. 1941, The George Washington University	
Ravasko, Helen Florence	N.I.		
A.B. 1939, College of St. Elizabeth		T	
S		Tamason, Anthony Stephen	Mass.
Sartwell, Mary Katherine Lawrence	D.C.	A.B. 1911, Holy Cross College	
A.B. 1942, The George Washington University		Taylor, Sterling Philip, Jr.	Conn.
Schatz, Martin Maxine	D.C.	Thomas, Henry Melvin	N.I.
Schmitt, Charles Fred C.	D.C.	A.B. 1940, The George Washington University	
Schewe, William John	Mo.	Thompson, William Daves	Ala.
A.B. 1939, B.S. 1942, University of Missouri		B.S. 1910, Alabama Polytechnic Institute	
Schlund, John Myron	Calif.	Tievsky, George	D.C.
Schoene, Fred Carl	Wis.	B.S. 1910, The George Washington University	
Schumacher, Jack	Neb.	Timberlake, Philip Franklin	Calif.
A.B. 1942, The George Washington University		A.B. 1942, Whittier College	
Seiscent, Verdi Italo	D.C.	Towey, Simon Charles	N.I.
Shadel, William Noel	Calif.	Treichler, Howard Percut	N.Y.
Sherburne, John Collis	Conn.	V	
A.B. 1941, Miami University		Vargas, Lester Joseph	R.I.
Siddoway, John Lewis, Jr.	Utah	Vaupel, George Louis	W.Va.
Smack, Lee Harold	N.I.	B.S. 1930, Bethany College	
Solem, Dorothy Sylvia	D.C.	B.S. 1941, West Virginia University	
A.B. 1941, The George Washington University		Velkoff, Cyril J.	Ind.
Staff, Manuel Lechner	N.I.	A.B. 1942, The George Washington University	
A.B. 1937, Cornell University		Vicellio, Asa William	D.C.
Slater, Ronald B. Ford, Jr.	Calif.	W	
A.B. 1941, University of Southern California		Wagner, J. H. B.	Pa.
Smiley, Stanley Joseph	Calif.	Wacker, Charles Elmer	Calif.
A.B. 1940, University of California		Wagon, Kenneth Marshall	Ariz.
Smith, Burton Glancy	D.C.	Wagner, Robert Orr	Me.
Smith, C. Reed	Utah	Wagner, Herbert Milton	D.C.
Smith, Gordon Murdoch	Va.	Wass, Henry Albert	W.Va.
A.B. 1941, The George Washington University		Wetzel, Frank Henry	D.C.
Smith, Jullien Lyle	Calif.	A.B. 1941, The George Washington University	
Smith, Marya Dale	Miss.	Wentworth, John Edward	Mich.
A.B. 1941, Mississippi College		A.B. 1936, Albion College	
Smith, Robert Shaw	Idaho	White, John William	D.C.
B.S. 1939, University of Idaho		White, Philip Eugene	Calif.
Smock, Margaret Throckmorton	Iowa	Whitney, Richard Walker	Mass.
A.B. 1937, Iowa Wesleyan College		A.B. 1942, University of Maine	
Souther, Chester Henry, Jr.	N.H.	Wilson, Thomas Albert	Me.
A.B. 1941, University of New Hampshire		A.B. 1942, The George Washington University	
Sowers, James Adam	Calif.	Wilson, Thomas Moore	D.C.
Spatz, Raymond Lester	Pa.	Winstead, Raymond Joseph	Me.
B.S. 1941, Albright College		B.S. 1941, Catholic University of America	
Spies, Harold Wade	Ohio	Wood, Clayton Edward	D.C.
B.S. 1942, Mount Union College		A.B. 1942, American University	
Spitz, Arthur Herman	S.C.	Y	
B.S. 1941, University of South Carolina		Yates, Richard Anthony	Me.
Spray, Paul	Pa.	Yowell, William Bruce, Jr.	D.C.
B.S. 1942, University of Pittsburgh		B.S. 1942, University of Maryland	
Spurlin, George Warren	Md.	Z	
Stanley, Robert Golewski	Pa.	Zeller, William Webb	D.C.
A.B. 1942, University of Pennsylvania		A.B. 1942, The George Washington University	
Stefan, David John	Wis.	Zimmerman, Joe Adair	Me.
Steller, Raymond J.	D.C.	A.B. 1942, Westminster College	
Stone, David Joseph	N.Y.	Zimmerman, Lorenz Dietrich	D.C.
A.B. 1936, Johns Hopkins University			
Stone, Thomas Edward	D.C.		
Stroup, Matthew Alfred	N.C.		
A.B. 1939, University of North Carolina			



# SUMMARIES OF REGISTRATION

1942-43

## NUMBER OF REGISTRATIONS

Class entering March 1943.....	83
Class entering June 1942.....	78
Class entering September 1941.....	83
Class entering September 1940.....	64
Class entering September 1939.....	72
Total.....	380

## GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Alabama .....	5	New York .....	24
Arizona .....	4	North Carolina .....	4
California .....	31	Ohio .....	16
Colorado .....	1	Oklahoma .....	6
Connecticut .....	5	Oregon .....	3
District of Columbia.....	109	Pennsylvania .....	15
Florida .....	1	Rhode Island .....	2
Idaho .....	10	South Carolina .....	1
Illinois .....	2	South Dakota .....	3
Indiana .....	4	Texas .....	2
Iowa .....	3	Utah .....	15
Kentucky .....	1	Vermont .....	2
Maine .....	1	Virginia .....	11
Maryland .....	13	Washington .....	14
Massachusetts .....	8	West Virginia .....	4
Michigan .....	4	Wisconsin .....	8
Mississippi .....	3	Wyoming .....	4
Missouri .....	7	China .....	1
Montana .....	1	Panama .....	1
Nebraska .....	1	Philippine Islands .....	1
New Hampshire .....	1	Puerto Rico .....	5
New Jersey .....	23	Total.....	380

## GRADUATES OF COLLEGES REGISTERED IN THE SCHOOL OF MEDICINE

Alabama, University of .....	3	Boston University .....	1
Alabama Polytechnic Institute .....	1	Brigham Young University .....	4
Albion College .....	1	Brown University .....	2
Albright College .....	2	Buffalo, University of .....	1
American University .....	2	California, University of .....	8
Arizona, University of .....	2	Carleton College .....	1
Baylor University .....	1	Catholic University of America.....	6
Bethany College (W. Va.) .....	1	Chicago, University of .....	1
Birmingham Southern College .....	1	Citadel, The .....	1

Clark University .....	1	Oklahoma, University of .....	2
Colgate University .....	2	Oregon, University of .....	1
Cornell University .....	1	Pennsylvania, University of .....	1
De Pauw University .....	1	Pittsburgh, University of .....	3
Dickinson College .....	3	Princeton University .....	1
Emory and Henry College .....	1	Puerto Rico, University of .....	1
Erskine College .....	1	Roanoke College .....	1
Fresno State College .....	2	Rochester, University of .....	2
Georgetown University .....	1	St. Elizabeth, College of .....	1
George Washington University, The .....	49	Smith College .....	1
Harvard University .....	1	South Carolina, University of .....	1
Holy Cross, College of the .....	1	South Dakota, University of .....	1
Idaho, College of .....	1	Southern California, University of .....	1
Idaho, University of .....	5	Stanford University .....	3
Iowa Wesleyan College .....	1	Syracuse University .....	1
Johns Hopkins University .....	1	Texas, University of .....	1
Kentucky, University of .....	1	Toledo, University of .....	1
Maine, University of .....	2	Transylvania College .....	1
Maryland, University of .....	5	Union College .....	1
Miami University .....	4	Utah State Agricultural College .....	3
Michigan State College of Agriculture and Applied Science .....	4	Utah, University of .....	5
Michigan, University of .....	5	Virginia, University of .....	1
Middlebury College .....	1	Washington, State College of .....	1
Mississippi, University of .....	2	Washington, University of .....	6
Mississippi College .....	1	West Virginia University .....	2
Missouri, University of .....	2	Western Reserve University .....	1
Morningside College .....	1	Westminster College .....	1
Mount Holyoke College .....	1	Whittier College .....	1
Mount Saint Mary College .....	1	William and Mary, College of .....	1
Mount Union College .....	1	Wilson Teachers College .....	1
New Jersey State Teachers College .....	1	Wisconsin, University of .....	3
New Hampshire, University of .....	1	Wyoming, University of .....	2
New York University .....	7	Yale University .....	1
North Carolina, University of .....	4	Youngstown College .....	1
Northwestern University .....	1		
Notre Dame, University of .....	1	Total .....	216
Ohio State University .....	1	Duplicates .....	6
Ohio University .....	3	Number of college graduates .....	210
		Number of colleges represented .....	90



# WAR SERVICE OPPORTUNITIES

IN

## THE GEORGE WASHINGTON UNIVERSITY

### THE UNIVERSITY AND WAR SERVICE

The George Washington University is meeting the educational responsibilities of war-time with an accelerated program, designed to satisfy immediate war needs and the needs of the post-war future. Through a readjustment of its educational program, the University is giving full attention to the present national requirements, and at the same time is recognizing the necessity for young men and women to plan for careers after the war.

### THE ACCELERATED PROGRAM

The accelerated program of study, made possible by year-round instruction on a three term basis and set up to meet the demands of a nation at war for professionally and technically trained men and women, is established to reduce the time required for the completion of college work.

This program will enable students entering from high schools to complete what has formerly been considered a four-year college program in two and two-thirds years. Under special guidance the students entering The George Washington University will be assisted to plan their study so that, should it become necessary for them to enter the armed forces, the civilian public service, or a war production industry before they are graduated, they will be better prepared to make their contributions to the war effort.

### PREPARATION FOR THE ARMED SERVICE

The George Washington University is cooperating with the Army, Navy, Marine Corps, and Coast Guard in their various college training programs. To meet the needs of the training program of the Armed Forces, the University offers a full program of pre-induction courses for men not yet called to service.

The Office of the Junior College is prepared to furnish full information regarding selective service regulations, opportunities for enlistment in the Armed Forces, and war service opportunities for both men and women.

Through its Division of Extension, the University is offering intensive courses that prepare for war service, such as: Pre-flight Aeronautics; In-



dustrial Camouflage; Cryptanalysis; and Japanese, Chinese, Russian, Arabic, and Turkish.

#### PREPARATION FOR WARTIME BUSINESS OR THE PUBLIC SERVICE

*Administrative Assistants Curriculum.*—Recognizing the need for office executives and that college women will be called upon to assume the responsibilities of many men who enter the Armed Service, the University is establishing a new curriculum to train administrative assistants. This program of studies will lead to a Bachelor of Science degree.

*Latin American Program.*—The University is offering courses in Spanish and Portuguese, and in Latin American literature, geography, economics, history, and political science.

#### ENGINEERING WAR TRAINING PROGRAM

The School of Engineering of The George Washington University was the first school in the country to offer courses in Engineering, Science, and Management War Training in cooperation with the United States Office of Education. Since December 1940, when the program was inaugurated, 7,500 students have received training in this University under this program. Some thirty courses are offered, which include such subjects as map making, construction, higher structures, general engineering drafting, tool design, ship construction, mathematics, radio, electric motors, and circuit analysis. This work is offered in the evening on a part-time basis in three terms of fifteen weeks each, throughout the year.

#### THE UNIVERSITY AND CIVILIAN TRAINING

The University has established a program of Civilian Defense both to meet the specific problems of its own protection in the event of air raids and to train individuals for service in their home communities.

THE CATALOGUE ISSUE

1943-44



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLII

No. 4

---

THE CATALOGUE ISSUE

---

WASHINGTON, D. C.

PUBLISHED IN JUNE  
MCMXLIII

BY THE UNIVERSITY





# CONTENTS

	Page
WAR SERVICE OPPORTUNITIES IN THE GEORGE WASHINGTON UNIVERSITY	i
THE UNIVERSITY CALENDAR	ix
OFFICERS AND COMMITTEES OF THE UNIVERSITY	xv
The Board of Trustees	xvii
Standing Committees of the Board of Trustees	xix
Officers of Administration	xxi
The Academic Council	xxii
Standing Committees of the Faculty	xxiv
Staff of Instruction	xxvi
Administrative Assistants	lii
THE UNIVERSITY	i
History and Organization	3
Educational Facilities	7
Admission	10
Registration	19
Fees and Financial Regulations	20
Fellowships, Scholarships, Prizes, Loans	24
Regulations	35
Student Life	41
THE COLLEGES, SCHOOLS, AND DIVISIONS	43
The Junior College	45
Columbian College (the senior college)	57
The Graduate Council	71
The School of Medicine	77
The Law School	87
The School of Engineering	97
The School of Pharmacy	107
The School of Education	113
The School of Government	125
The Division of University Students	137
The Division of Extension	140
The Inter-American Center	141
The Summer Sessions	143
COURSES OF INSTRUCTION	145
Anatomy	149
Art	150
Bacteriology, Hygiene, and Preventive Medicine	153
Biochemistry	155
Biology	156
Botany	158
Business Administration	160
Chemistry	164
Civil Engineering	169
Classical Languages and Literatures	172

Dermatology and Syphilology .....	Page 173
Economica .....	174
Education .....	170
Electrical Engineering .....	185
English .....	188
Geology .....	193
Germanic Languages and Literatures .....	194
Health Administration .....	195
History .....	197
Home Economics .....	200
Journalism .....	203
Law .....	204
Mathematics .....	210
Mechanical Engineering .....	213
Medicine .....	216
Military Science and Tactics .....	219
Neurology .....	220
Obstetrics and Gynecology .....	222
Ophthalmology .....	224
Oto-rhino-laryngology .....	225
Pathology .....	226
Pediatrics .....	227
Pharmacology and Therapeutics .....	229
Pharmacy .....	230
Philosophy .....	233
Physical Education for Men .....	234
Physical Education for Women .....	238
Physics .....	242
Physiology .....	246
Political Science .....	247
Psychiatry .....	250
Psychology .....	251
Romance Languages and Literatures .....	256
Secretarial Studies .....	261
Sociology .....	264
Speech .....	269
Statistics .....	269
Surgery .....	274
Urology .....	277
Zoology .....	278
UNIVERSITY ORGANIZATIONS .....	281
Alumni and Allied Associations .....	283
Honor Societies .....	290
Student Organizations .....	298
INDEX .....	301

THE UNIVERSITY CALENDAR



1943

July						
S	M	T	W	T	F	S
..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
..	..	..	..	..	..	..

August						
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	..	..	..	..
..	..	..	..	..	..	..

September						
..	..	1	2	3	4	..
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	..	..
..	..	..	..	..	..	..

October						
..	..	..	1	2	..	..
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	..	..	..	..	..	..

November						
..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	..	..	..	..
..	..	..	..	..	..	..

December						
..	..	..	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	..
..	..	..	..	..	..	..

1944

January						
S	M	T	W	T	F	S
..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	..	..	..	..	..

February						
..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	..	..	..	..
..	..	..	..	..	..	..

March						
..	..	1	2	3	4	..
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	..
..	..	..	..	..	..	..

April						
..	..	..	..	1	..	..
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	..	..	..	..	..	..

May						
..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	..	..	..
..	..	..	..	..	..	..

June						
..	..	..	1	2	3	..
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	..
..	..	..	..	..	..	..

July						
S	M	T	W	T	F	S
..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	..	..	..	..	..

August						
..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	..	..
..	..	..	..	..	..	..

September						
..	..	..	..	..	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
..	..	..	..	..	..	..

October						
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	..	..	..	..
..	..	..	..	..	..	..

November						
..	..	1	2	3	4	..
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	..	..
..	..	..	..	..	..	..

December						
..	..	..	..	1	2	..

# THE UNIVERSITY CALENDAR \*

1943-44

Date	Day	Occasion
<b>FALL TERM</b>		
Sept. 10-11		Pre-registration period for the fall term
Sept. 29	Wednesday	Meeting of the University Faculty
Sept. 30	Thursday	Examinations for students who wish to qualify for advanced course
Oct. 1 and 2	Friday and Saturday	Registration period for the fall term
Oct. 4	Monday	Academic year begins
Oct. 14	Thursday	Stated meeting of the Board of Trustees
Oct. 16	Saturday	Foreign language examinations for candidates for the degree of Master of Arts
		Last day for registration for course for the fall term
		Last day on which candidates may file thesis subjects for the Master's degrees conferred in February
Oct. 30	Saturday	Last day on which candidates may file thesis subjects for the degree of Doctor of Philosophy and Doctor of Education to be conferred the following May
Nov. 2	Tuesday	Meeting of the Academic Council
Nov. 10	Wednesday	Fall Convocation
Nov. 23-27	Thursday through Sunday	Thanksgiving recess
Dec. 7	Tuesday	Meeting of the Academic Council
Dec. 9	Thursday	Stated meeting of the Board of Trustees
Dec. 23-Jan. 1	Thursday through Saturday	Christmas recess
Jan. 3	Monday	Classes resume
		Last day for applications for degrees and Theses Candidates to be conferred in February

\* The academic program requires the School of Medicine and the Law School to arrange classes well in advance of that of the other colleges and schools. Classes and papers given for these schools are stated below for the University calendar. Dates of classes for these schools are in the University calendar.

† The first meeting of the Faculty will be held after lunch on the benefit of those who wish to consult about educational programs.

## THE UNIVERSITY CALENDAR—Continued

Date	Day	Occasion
Jan. 3.....	Monday .....	Last day for receiving theses of candidates for the degrees of Doctor of Philosophy and Doctor of Education to be conferred in February
Jan. 10-29.....		Pre-registration period for the winter term
Jan. 20.....	Thursday .....	Last day of classes for the fall term
Jan. 21-29.....	Friday through Saturday .....	Fall term examination period
Jan. 24.....	Monday .....	Last day for receiving theses of candidates for the Master's degrees to be conferred in February
<b>WINTER TERM:</b>		
Jan. 31.....	Monday .....	Examinations for students who wish to qualify for advanced courses
Feb. 2 and 3...	Wednesday and Thursday .....	Registration period for the winter term
Feb. 4.....	Friday .....	Classes resume for the winter term
Feb. 5.....	Saturday .....	Foreign-language examinations for candidates for the Master's degrees
Feb. 10.....	Thursday .....	Stated meeting of the Board of Trustees
Feb. 18.....	Friday .....	Last day for registration for credit for the winter term
		Last day on which candidates may file thesis subjects for the Master's degrees to be conferred in May
Feb. 22.....	Tuesday .....	Winter Convocation. Holiday
Feb. 29.....	Tuesday .....	Meeting of the Academic Council
March 1.....	Wednesday .....	Application for fellowships for 1944-45 should be filed
March 9.....	Thursday .....	Stated meeting of the Board of Trustees
March 28.....	Tuesday .....	Meeting of the University Faculty
April 7 and 8..	Friday and Saturday..	Easter recess
April 14.....	Friday .....	Pan American Day Convocation
April 20.....	Thursday .....	Last day for receiving theses of candidates for the degrees of Doctor of Philosophy and Doctor of Education to be conferred in May

THE UNIVERSITY CALENDAR—Continued

Date	Day	Occasion
April 20.....	Thursday .....	Last day on which candidates may file thesis subjects for the degrees of Doctor of Philosophy and Doctor of Education to be conferred the following February
May 1.....	Monday .....	Last day for applications for degrees and Junior Certificates to be conferred in May
May 2.....	Tuesday .....	Meeting of the Academic Council Foreign-language examinations for candidates for the degree of Master of Arts
May 8.....	Monday .....	Last day for receiving theses of candidates for the Master's degrees and for the professional degrees in Engineering to be conferred in May
May 8-June 3. ....	.....	Pre-registration period for the summer term
May 15.....	Monday .....	Applications for scholarships for 1944-45 should be filed
May 16.....	Tuesday .....	Last day of classes for the winter term
May 17-27....	Wednesday through Saturday .....	Winter term examination period
May 25.....	Thursday .....	Annual Meeting of the Board of Trustees
May 28.....	Sunday .....	Baccalaureate Sermon
May 30.....	Tuesday .....	Memorial Day. Holiday
May 31.....	Wednesday .....	Commencement
<b>SUMMER TERM:</b>		
June 5.....	Monday .....	Registration for the first session of the summer term
July 4.....	Tuesday .....	Independence Day. Holiday
July 26.....	Wednesday .....	First summer session ends
July 27.....	Thursday .....	Registration for the second session of the summer term
Sept. 4.....	Monday .....	Labor Day. Holiday
Sept. 15.....	Friday .....	Second summer session ends
Sept. 29 and 30.	Friday and Saturday..	Registration for the fall term of the academic year 1944-45



## THE SCHOOL OF MEDICINE

Date	Day	Occasion
<b>WINTER TERM:</b>		
Nov. 22.....	Monday .....	Winter term begins
Dec. 24-Jan. 1.	Friday through Satur- day .....	Christmas recess
April 1.....	Saturday .....	Winter term ends
<b>SUMMER TERM:</b>		
April 17.....	Monday .....	Summer term begins
Aug. 19.....	Saturday .....	Summer term ends

## THE SCHOOL OF LAW

Date	Day	Occasion
<b>FALL TERM:</b>		
Oct. 4.....	Monday .....	Fall term begins
Nov. 29 and 30.	Monday and Tuesday	Mid-term examinations
Dec. 24-Jan. 1.	Friday through Satur- day .....	Christmas recess
Jan. 28-Feb. 3.	Friday through Thurs- day .....	Fall-term examination period
<b>WINTER TERM:</b>		
Feb. 4.....	Friday .....	Winter term begins
Mar. 31 and Apr. 1.....	Friday and Saturday..	Mid-term examinations
May 22-27....	Monday through Sat- urday .....	Winter term examination period
<b>SUMMER TERM:</b>		
June 5.....	Monday .....	First summer session begins
July 26.....	Wednesday .....	First summer session ends
July 27.....	Thursday .....	Second summer session begins
Sept. 26.....	Wednesday .....	Second summer session ends

OFFICERS AND COMMITTEES  
OF THE UNIVERSITY



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President of the University ex officio and the following persons by election:

1944

- Avery DeLano Andrews, B.S., LL.B.; Winter Park, Florida  
Clarence Aiken Aspinwall; 1140 Fifteenth Street  
Henry Parsons Erwin, A.B.; Hibbs Building  
Mrs. Joshua Evans, Jr., A.B., Ed.D.; 3405 Lowell Street  
\*Robert Elliott Freer, A.B., LL.M.; Federal Trade Commission  
John Edgar Hoover, LL.M., LL.D.; United States Department of Justice  
\*Alexander Willbourne Weddell, LL.B., Litt.D., LL.D.; Virginia House, Richmond, Virginia  
Walter Rupert Tuckerman, A.B., LL.B.; 1721 H Street  
Chester Wells, B.S., Graduate United States Naval War College; Jones Mill Road, Chevy Chase, Maryland

1945

- \*Harvey Cleveland Bickel, LL.B.; Munsey Building, Baltimore, Maryland  
Harry Cassell Davis, A.M., LL.D.; 1921 Kalorama Road  
\*George Edgar Fleming, LL.M.; Union Trust Company  
Charles William Gerstenberg, Ph.B., LL.B., J.D.; 70 Fifth Avenue, New York City  
Ulysses S. Grant, 3d, B.S., Graduate United States Engineers' School; 1130 Dupont Circle  
Gilbert Grosvenor, A.M., LL.D., Litt.D.; National Geographic Society  
Alfred Henry Lawson, LL.B.; Washington Loan and Trust Company  
Theodore Williams Noyes, A.M., LL.M., LL.D.; 1730 New Hampshire Avenue  
Luther Halsey Reichelderfer, M.D., LL.D.; 1661 Crescent Place  
Lloyd Bennett Wilson; 725 Thirteenth Street

1946

- Charles Silas Baker, A.M., LL.B.; 720 Munsey Building  
John St. Clair Brookes, Jr., A.M., LL.B.; Edmonds Building  
\*Bennett Champ Clark, A.B., LL.B.; Senate Office Building

\* Nominated by the alumni



John Henry Cowles, LL.D.; 1733 Sixteenth Street

\*Newell Windom Ellison, A.B., LL.B.; 740 Fifteenth Street

Robert Vedder Fleming, LL.D.; Riggs National Bank

Charles Carroll Glover, Jr., A.M., LL.B.; Riggs National Bank

Arthur Peter, LL.B.; Washington Loan and Trust Building

Mrs. Henry Alvah Strong, LL.D.; Normandy Building

Merle Thorpe, A.B.; United States Chamber of Commerce Building

---

*Chairman of the Board of Trustees*

Robert Vedder Fleming

*Vice Chairman of the Board of Trustees*

Arthur Peter

*Secretary of the Board of Trustees*

Harry Cassell Davis

*Assistant Secretary of the Board of Trustees*

Henry Parsons Erwin

\* Nominated by the alumni.

## STANDING COMMITTEES OF THE BOARD OF TRUSTEES

The Chairman of the Board of Trustees and the President of the University shall be members ex officio of each of the committees of the Board. The President of the University shall be Chairman of the Executive Committee.

### EXECUTIVE COMMITTEE

Mr. Baker, *Secretary*; Mr. Erwin; Mrs. Evans; Mr. Glover;  
Dr. Reichelderfer; Mr. Tuckerman

### COMMITTEE ON EDUCATIONAL POLICY

Mr. Baker, *Chairman*; Mr. Brookes; Mr. Gerstenberg; Mr. Grosvenor;  
Mr. Hoover; Mr. Thorpe

### COMMITTEE ON ENDOWMENT FUNDS

Mr. Aspinwall, *Chairman*; Mr. Cowles; Mr. George E. Fleming;  
Mrs. Strong; Mr. Wilson

### COMMITTEE ON FINANCE

Mr. Erwin, *Chairman*; Mr. Aspinwall; Mr. George E. Fleming;  
Mr. Peter; Mr. Wells

### COMMITTEE ON NOMINATION OF TRUSTEES

Mr. Wells, *Chairman*; Mr. Cowles; Mr. Grant; Mr. Grosvenor;  
Mr. Hoover

### COMMITTEE ON HONORS

Mr. Grosvenor, *Chairman*; Mr. Baker; Mr. Gerstenberg;  
Dr. Reichelderfer; Mr. Tuckerman

### COMMITTEE ON ALUMNI RELATIONS

Mr. Davis, *Chairman*; Mr. Bickel; Mr. Clark; Mrs. Evans;  
Mr. Noyes

*The George Washington University*

## COMMITTEE ON UNIVERSITY LIBRARIES AND MUSEUMS

Mr. Thorpe, *Chairman*; Mr. Davis; Mr. George E. Fleming;  
Mr. Lawson; Mr. Noyes

## COMMITTEE ON LEGAL AFFAIRS

Mr. Peter, *Chairman*; Mr. Andrews; Mr. Baker; Mr. Brookes;  
Mr. Wilson

## COMMITTEE ON BUILDINGS AND LANDS

Mr. Lawson, *Chairman*; Mr. Glover; Mr. Grant; Mr. Tuckerman;  
Mr. Wilson

## COMMITTEE ON PERSONNEL

Mr. Wilson, *Chairman*; Mr. Erwin; Mrs. Evans; Mr. Freer;  
Mr. Grosvenor

## COMMITTEE ON EXTRA-CURRICULAR ACTIVITIES

Mr. Brookes, *Chairman*; Mr. Freer; Mr. Tuckerman

## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

- Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Harold Griffith Sutton, M.S., *Director of Admissions*  
Fred Everett Nessel, A.B., *Registrar; Secretary of the Faculties*  
John Russell Mason, B.S. in L.S., A.M., *Librarian*  
\*Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*  
Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
Henry William Herzog, B.S., *Comptroller*  
Allen Howard Connolly, B.S., *Business Manager*  
\*Daniel LeRay Borden, A.M., M.D., *Director of Health Administration*  
Benjamin Franklin Dean, Jr., M.S., M.D., *Acting Director of Health Administration*  
Vinnie Giffen Barrows, A.M., *Director of Personnel Guidance*  
\*Claud Max Farrington, A.M., *Adviser on Physical Education*  
Lester Allan Smith, A.M., *Alumni Secretary*

### THE COLLEGES, SCHOOLS, AND DIVISIONS

- William Crane Johnstone, Jr., Ph.D., *Dean of the Junior College*  
\*Henry Grattan Doyle, A.M., *Dean of Columbian College*  
Robert Whitney Bolwell, Ph.D., *Chairman of the Graduate Council*  
Walter Andrew Bloedorn, A.M., M.D., *Dean of the School of Medicine*  
William Cabell Van Vleck, A.B., LL.B., S.J.D., *Dean of the Law School*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of Engineering*  
\*William Paul Briggs, M.S., *Dean of the School of Pharmacy*  
James Harold Fox, A.M., Ed.D., *Dean of the School of Education*  
—, *Dean of the School of Government*  
Elmer Louis Kayser, Ph.D., *Dean of University Students; University Marshal*  
Sidney Bartlett Hall, A.M., Ed.D., *Director of the Division of Extension*  
Warren Reed West, Ph.D., *Assistant Dean of the School of Government*  
Christopher Browne Garnett, Jr., Ph.D., Litt.D., *Assistant Dean of Columbian College*  
Donnell Brooks Young, Ph.D., *Assistant Dean in the Junior College*  
Katharine Rogers Adams, Ph.D., *Assistant Dean in the Junior College*  
Alan Thomas Deibert, A.M., *Assistant Dean in the Junior College, Adviser to Students from Foreign Countries*  
George Howland Cox, *Director of the Inter-American Center*  
\*John Rust Busick, A.B., *Director of Athletics*  
Ruth Harriet Atwell, A.M., *Director of Physical Education for Women*  
William Henry Myers, A.M., *Acting Director of Physical Education for Men*



## THE ACADEMIC COUNCIL

### THE UNIVERSITY

The President of the University  
The Director of Admissions  
The Registrar  
The Librarian

### THE GRADUATE COUNCIL

The Chairman of the Council  
Edward Henry Sehr  
Fred Salisbury Tupper

### THE JUNIOR COLLEGE

The Dean of the College  
Alan Thomas Deibert  
Florence Marie Mears

### COLUMBIAN COLLEGE

The Dean of the College  
Thomas Benjamin Brown  
John Porter Foley, Jr.

### THE SCHOOL OF MEDICINE

The Dean of the School  
Leland Wilbur Parr  
Chester Elwood Leese

### THE LAW SCHOOL

The Dean of the School  
Charles Sager Collier  
Hector Galloway Spaulding

### THE SCHOOL OF ENGINEERING

The Dean of the School  
Benjamin Carpenter Cruickshanks  
Milton Kent Akers

*The Academic Council*

xxiii

THE SCHOOL OF PHARMACY

The Dean of the School

THE SCHOOL OF EDUCATION

The Dean of the School

Willard Hayes Yeager

Frances Kirkpatrick

THE SCHOOL OF GOVERNMENT

The Dean of the School

James Christopher Corliss

Donald Stevenson Watson

THE DIVISION OF UNIVERSITY STUDENTS

The Dean of the Division

THE DIVISION OF EXTENSION

The Director of the Division

## STANDING COMMITTEES OF THE FACULTY

### COMMITTEE ON EDUCATIONAL POLICY

The President of the University, *Chairman*  
The Dean of the Junior College  
The Dean of Columbian College  
The Chairman of the Graduate Council  
The Dean of the School of Medicine  
The Dean of the Law School  
The Dean of the School of Engineering  
The Dean of the School of Pharmacy  
The Dean of the School of Education  
The Dean of the School of Government  
The Dean of University Students  
The Director of the Division of Extension

### COMMITTEE ON ADMISSION AND ADVANCED STANDING

Harold Griffith Sutton, *Chairman*  
Carville Dickinson Benson                      Fred Salisbury Tupper

### COMMITTEE ON ELIGIBILITY

Arthur Frederick Johnson, *Chairman*  
Fred Everett Nessell                      Carl Hugo Walther  
James Robert Kirkland

### COMMITTEE ON LIBRARY

Charles Sager Collier, *Chairman*  
Edward Henry Sehr                      Joseph Hiram Roe

### COMMITTEE ON PUBLIC CEREMONIES AND ASSEMBLIES

Elmer Louis Kayser, *University Marshal; Chairman*  
Leland Wilbur Parr                      Frank Mark Weida  
Paul William Bowman                      Charles William Cole  
Fred Everett Nessell

COMMITTEE ON RESEARCH

Robert Whitney Bolwell, *Chairman*

William Cullen French

Saul Chesterfield Oppenheim

Donnell Brooks Young

Chester Elwood Leese

COMMITTEE ON STUDENT LOANS AND SCHOLARSHIPS

Warren Reed West, *Chairman*

Vinnie Giffen Barrows

Fred Everett Nessell

Arthur Edward Burns

Henry William Herzog

COMMITTEES ON EXTRA-CURRICULAR ACTIVITIES AND  
STUDENT RELATIONSHIPS

COMMITTEE ON STUDENT LIFE

Burnice Herman Jarman, *Chairman*

Vinnie Giffen Barrows

William Henry Myers

COMMITTEE ON FORENSICS AND DRAMATICS

Willard Hayes Yeager, *Chairman*

Henry Goddard Roberts

Floyd Lorang Sparks

COMMITTEE ON MUSICAL ORGANIZATIONS

Chester Elwood Leese, *Chairman*

John Russell Mason

Gretchen Louisa Rogers

COMMITTEE ON PUBLICATIONS

Marcelle LeMénager Lane, *Chairman*

John Rust Busick

Henry William Herzog



## STAFF OF INSTRUCTION

### FACULTY

#### EMERITUS LIST

PAUL BARTSCH, Ph.D., Sc.D. <i>Professor Emeritus of Zoology</i>	1456 Belmont St.
RAY SMITH BASSLER, Ph.D., Sc.D. <i>Professor Emeritus of Geology</i>	Ontario Apts.
ALBERT BURNLEY BIBB <i>Professor Emeritus of the History of Art</i>	Cosmos Club
LOUIS FRANCIS BRADLEY, Ph.D. <i>Professor Emeritus of Pharmacy</i>	701 Maryland Ave. NE.
GEORGE MORTON CHURCHILL, Ph.D. <i>Professor Emeritus of English History</i>	5601 River Rd.
WALTER COLLINS CLEPHANE, LL.M., LL.D. <i>Professor Emeritus of Law</i>	6000 Connecticut Ave. Chevy Chase, Md.
ANNA PEARL COOPER, A.M. <i>Professor Emeritus of English</i>	1028 Connecticut Ave.
GILBERT LEWIS HALL, A.B., LL.B. <i>Professor Emeritus of Law</i>	1208 N. Wayne St. Arlington, Va.
GEORGE NEELY HENNING, A.M., Litt.D. <i>Professor Emeritus of Romance Languages</i>	3720 McKinley St.
WILLIAM JACKSON HUMPHREYS, Ph.D., C.E. <i>Professor Emeritus of Meteorological Physics</i>	Cecil Apts.
GEORGE BAIN JENKINS, M.D. <i>Professor Emeritus of Anatomy</i>	30 Gallatin St.
CECIL KNIGHT JONES, Litt.B. <i>Professor Emeritus of Spanish American Literature</i>	9 Hesketh St. Chevy Chase, Md.
JOHN WILMER LATIMER, LL.B. <i>Professor Emeritus of Law</i>	14 Newlands St. Chevy Chase, Md.
HURON WILLIS LAWSON, M.S., M.D. <i>Professor Emeritus of Obstetrics and Gynecology</i>	1717 N St.
WILLIAM JOHNSTON MALLORY, A.M., M.D. <i>Professor Emeritus of Medicine</i>	1720 Connecticut Ave.
WILLIAM BEVERLEY MASON, M.D. <i>Professor Emeritus of Oto-rhino-laryngology</i>	1738 M St.
JAMES FARNANDIS MITCHELL, A.B., M.D. <i>Professor Emeritus of Clinical Surgery</i>	1344 19th St.

# Staff of Instruction

xxvii

WALTER LEWIS MOLL, A.B., LL.B., S.I.D. <i>Professor Emeritus of Law</i>	2911 29th St.
EDWARD ELLIOTT RICHARDSON, Ph.D., M.D., Th.D. <i>Professor Emeritus of Philosophy</i>	Star Route Pottstown, Pa.
WILLIAM CARL RUEDIGER, Ph.D. <i>Professor Emeritus of Education</i>	2836 28th St.
STERLING RUFFIN, M.D., Sc.D. <i>Professor Emeritus of Medicine</i>	Connecticut Apts.
ALFRED FRANCIS WILLIAM SCHMIDT, A.M. <i>Professor Emeritus of Library Science</i>	35 Bryant St.
CHARLES SIDNEY SMITH, Ph.D. <i>Professor Emeritus of Classical Languages</i>	341 Takoma Ave. Takoma Park, Md.
WENDELL PHILLIPS STAFFORD, A.M., LL.B., LL.D., Litt.D. <i>Professor Emeritus of Law</i>	1661 Crescent Pl.
WILLIAM ALLEN WILBUR, A.M., Litt.D., LL.D. <i>Professor Emeritus of English</i>	3816 Military Rd.

## ACTIVE LIST

*EDWARD CAMPION ACHESON, Ph.D. <i>Associate Professor of Finance</i>	Rolling Valley Vienna, Va.
†JOSEPH QUINCY ADAMS, Ph.D., Litt.D. <i>Adjunct Professor of English</i>	2915 Foxhall Rd.
KATHARINE ROGERS ADAMS, Ph.D. <i>Lecturer in English; Assistant Dean in the Junior College</i>	2000 F St.
MILTON KENT AKERS, B.S., E.E. <i>Associate Professor of Electrical Engineering</i>	609 Sligo Pkwy. Takoma Park, Md.
IRRETT CYRIL ALBRETTTON, A.B., M.D. <i>Professor of Physiology</i>	518 Cumberland Ave. Somerset, Md.
LEVI RUSSELL ALDEN, A.M., LL.B. <i>Adjunct Professor of Law</i>	3840 Harrison St.
ANTONIO ALONSO, A.M. <i>Assistant Professor of Spanish</i>	4903 Bayard Blvd. W. Chevy Chase, Md.
*NORMAN BRUCE AMES, M.S., E.E., LL.B. <i>Professor of Electrical Engineering</i>	8 Westwood Dr. Westmoreland Hills, Md.
HARRY FORD ANDERSON, M.D. <i>Professor of Dermatology and Syphilology</i>	1717 Poplar Lane
WILLIAM STATION ANDERSON, A.B., M.D. <i>Associate in Pediatrics</i>	4237 Garfield St.

\* On war leave 1943-44.

† On leave of absence 1943-44.

- MARY LANGS ARGO, A.M.  
*Instructor in Physics* 2736 Porter St.
- RUTH HARRIET ATWELL, A.M.  
*Professor of Physical Education for Women;  
Director of Women's Athletics* 4268 N. Vacation Lane  
Arlington, Va.
- COURTLAND DARKE BAKER, Ph.D.  
*Associate Professor of English* 2006 N St.
- FRANK WASHINGTON BALLOU, Ph.D.  
*Adjunct Professor of Education* Franklin Administration  
Building
- ARNOLD KENT BALLS, Ph.D.  
*Adjunct Professor of Enzymology* 3406 Lowell St.
- RALPH GREGORY BEACHLEY, M.D., Dr. P.H.  
*Adjunct Professor of Public Health Practice* Court House  
Arlington, Va.
- VIRGINIA PATTERSON BEELAR, A.B., M.D.  
*Clinical Instructor in Medicine* 5047 Sedgwick St.
- JOHN GORDON BELL, M.D.  
*Clinical Instructor in Oto-rhino-laryngology* 1835 I St.
- RUTH BENEDICT, A.B., M.D.  
*Clinical Instructor in Medicine* 2122 Tunlaw Rd.
- \*WINFIELD DeWITT BENNETT, A.M., LL.B.  
*Assistant Professor of Public Speaking* 3301 Alabama Ave.  
Alexandria, Va.
- CARVILLE DICKINSON BENSON, A.B., LL.B.  
S.I.D.  
*Professor of Law* 3176 18th St. N.  
Arlington, Va.
- SAIYUDE DITHAKAR BHAKDI, A.B., M.D.  
*Clinical Instructor in Medicine* 1915 Kalorama Rd.
- WILLIAM KIRKMAN BILLINGSLEY, Jr., A.B.,  
M.D.  
*Clinical Instructor in Medicine* 1827 Summit Pl.
- CATHARINE BIRCH, A.B., M.D.  
*Clinical Instructor in Oto-rhino-laryngology* 1801 I St.
- \*CHARLES WATSON BLIVEN, M.S.  
*Assistant Professor of Pharmaceutical Chemistry;  
Assistant Dean of the School of Pharmacy*
- WALTER ANDREW BLOEDORN, A.M., M.D.  
*Professor of Medicine; Dean of the School of  
Medicine. Medical Director of the University  
Hospital* 4617 Hawthorne Lane
- STERLING BOCKOVEN, M.D.  
*Clinical Instructor in Ophthalmology* 1752 Massachusetts Ave.
- ROBERT WHITNEY BOLWELL, Ph.D.  
*Professor of American Literature; Chairman of  
the Graduate Council* "Southport"  
Silver Spring, Md.
- HOWARD WISSLER BOND, Ph.D.  
*Lecturer in Chemistry* 3206 Wisconsin Ave.

\* On war leave 1943-44.

- \*DANIEL LeRAY BORDEN, A.M., M.D.  
*Clinical Professor of Surgery; Director of Health Administration; University Surgeon*
- PAUL WILLIAM BOWMAN, Ph.D.  
*Associate Professor of Biology* 3114 5th St. N.  
Arlington, Va.
- ORTON WELLS BOYD, A.M., C.P.A.  
*Lecturer in Business Administration* 617 Rolling Rd.  
Chevy Chase, Md.
- JETER CARROLL BRADLEY, M.D.  
*Clinical Instructor in Oto-rhino-laryngology; Associate University Physician* 4916 Van Ness St.
- \*JOHN WITHROW BREWER, Ph.D.  
*Associate Professor of International Law* 2818 Bellevue Terrace
- CRENSHAW DOUGLAS BRIGGS, B.S., M.D.  
*Clinical Instructor in Surgery* 1150 Connecticut Ave.
- \*WILLIAM PAUL BRIGGS, M.S.  
*Professor of Pharmacy; Dean of the School of Pharmacy* 6600 7th St.
- \*STEUART HENDERSON BRITT, Ph.D.  
*Assistant Professor of Psychology* 2910 Dumbarton Ave.
- LEO T. BROWN, M.D.  
*Clinical Instructor in Medicine* 1621 New Hampshire Ave.
- RADFORD BROWN, M.D.  
*Professor of Obstetrics and Gynecology* 1601 19th St.
- THOMAS BENJAMIN BROWN, Ph.D.  
*Professor of Physics* 2810 23d St. N.  
Arlington, Va.
- RUTH HINKLE BRUNNER, B.S.  
*Instructor in Physical Education for Women* 736 22d St.
- CLARENCE QUINTER BUNDERMAN  
SERGEANT, UNITED STATES ARMY  
*Instructor in Military Science and Tactics* 1335 H St.
- ASA VERNON BURDINE  
*Lecturer on Pharmaceutical Economics* 4704 15th St.
- ARTHUR EDWARD BURNS, Ph.D.  
*Adjunct Professor of Economics* 6521 32d St.
- JAMES THEODORE BURNS, M.D.  
*Clinical Instructor in Medicine* 5 5th St. SE.
- ELIZABETH BURTNER, A.M.  
*Assistant Professor of Physical Education for Women* 1514 17th St.
- FRANK ROBERT BYRNE, C.P.A., M.B.A., LL.M.  
*Lecturer on Accounting* 1509 16th St.
- EDWARD ALEXANDER CAFRITZ, M.D.  
*Clinical Instructor in Surgery* Westchester Apts.

\* On war leave 1943-44.



CHARLES POWELL CAKE, M.D. <i>Adjunct Clinical Professor of Medicine</i>	138 N. Jackson St. Arlington, Va.
PAUL CALABRISI, A.M. <i>Assistant Professor of Anatomy</i>	257 N. Thomas St. Arlington, Va.
CHARLES TROLL CARROLL, A.B., M.D. <i>Clinical Instructor in Medicine</i>	6801 6th St
GEORGEITE DUPUY CASKIE, L.-ÈS.-L. <i>Instructor in Romance Languages</i>	2013 New Hampshire Ave.
RICHARD BERNARD CASTELL, A.B., M.D. <i>Clinical Instructor in Medicine; Associate University Physician</i>	4816 Alton Pl.
FREDERIC DUNBAR CHAPMAN, A.B., M.D.C.M. <i>Clinical Instructor in Medicine</i>	1150 Connecticut Ave.
WILLIAM WILEY CHASE, A.B., M.D. <i>Clinical Instructor in Surgery</i>	1813 Parkside Dr.
WALTER LYNN CHENEY, Ph.D. <i>Professor of Philosophy</i>	3509 McKinley St.
ELIZABETH EMERY CHICKERING, A.B., M.D. <i>Associate in Pediatrics</i>	1601 Connecticut Ave.
CLINE N. CHIPMAN, M.D. <i>Associate in Anesthesia</i>	1420 Rhode Island Ave.
ROGER MORRISON CHOISSER, B.S., M.D. <i>Professor of Pathology</i>	4645 Hawthorne Lane
WILLIAM DUVAL CLAUDY, A.B., M.D. <i>Clinical Instructor in Medicine</i>	4924 46th St.
CHARLES SEYMOUR COAKLEY, M.D. <i>Clinical Instructor in Anesthesia; Associate University Physician</i>	1761 Crestwood Dr.
LAURENCE LEE COCKERHILL, M.D. <i>Associate in Obstetrics and Gynecology</i>	4709 49th St.
CONWAY PEYTON COE, A.B., LL.B. <i>Adjunct Professor of Law</i>	10 E. Kirk St. Chevy Chase, Md.
*CHARLES NORVAL COFER, Ph.D. <i>Instructor in Educational Psychology</i>	4504 MacArthur Blvd
ESSIE WHITE COHN, Ph.D. <i>Visiting Assistant Professor of Biochemistry</i>	2032 37th St. SE.
CHARLES WILLIAM COLE, Ph.D. <i>Assistant Professor of English</i>	4884 MacArthur Blvd
HAZEN EUGENE COLE, B.S., M.D. <i>Clinical Instructor in Surgery</i>	639 E. Capitol St.
CHARLES SAGER COLLIER, A.B., LL.B., S.J.D. <i>Professor of Law</i>	212 Rosemary St. Chevy Chase, Md.

\* On war leave 1943-44.

# Staff of Instruction

xxxi

- JAMES LLOYD COLLINS, A.B., M.D.  
*Associate in Surgery* 1831 I St.
- GERHARD COLM, DR. RER. POL.  
*Professorial Lecturer in Economics* 1615 N. Lexington St.  
Arlington, Va.
- \*WILLIAM RANDALL COMPTON, M.B.A.,  
LL.B., J.S.D.  
*Associate Professor of Law* McLean, Va.
- COURSEN BAXTER CONKLIN, A.M., M.D.  
*Clinical Professor of Medicine* 3000 44th St.
- JOSEPH FRANCIS CONLON, D.D.S.  
*Clinical Instructor in Dental Surgery* 5425 Connecticut Ave.
- \*CHARLES EDWARD COOK, B.S. IN E.E.,  
B.S. IN C.E., C.E.  
*Associate Professor of Civil Engineering* Franklin Park  
East Falls Church, Va.
- JAMES CHRISTOPHER CORLISS, A.M.  
*Adjunct Professor of Inter-American Economics* 2737 Devonshire Pl.
- IRENE CORNWELL, Ph.D.  
*Assistant Professor of French* 2126 Connecticut Ave.
- FRANK DUNCAN COSTENBADER, B.S., M.D.  
*Associate in Ophthalmology* 1150 Connecticut Ave.
- GEORGE HOWLAND COX  
*Lecturer on Hispanic American History; Director  
of the Inter-American Center* 3121 Chain Bridge Rd.
- MARY WINIFRED COX, A.B.  
*Associate in Secretarial Studies* 2013 New Hampshire Ave.
- RONALD ATMORE COX, A.B., M.D.  
*Assistant Clinical Professor of Ophthalmology,  
Associate University Physician* 1779 Massachusetts Ave.
- RUTH EMMA COYNER, Ph.D.  
*Associate Professor of Education* 215 A St. NE.
- GEORGE BOWDOIN CRAIGHILL, A.B., LL.B.  
*Adjunct Professor of Law* 2803 P St.
- NORRIS INGERSOLL CRANDALL, M.Arch.  
*Professor of Art* Balleys Cross Roads  
Alexandria, Va.
- GEORGE WILLIAM CRESWELL, A.B., M.D.,  
*Associate in Dermatology and Syphilology* 1630 Jonquil St.
- WALTER FREDERICK CROWDER, Ph.D.  
*Lecturer in Statistics* 2121 Virginia Ave.
- BENJAMIN CARPENTER CRUICKSHANKS,  
B.S. IN M.E.  
*Professor of Mechanical Engineering* 5733 4th St.
- HENRY LAURAN DARNER, A.B., M.D.  
*Clinical Professor of Obstetrics and Gynecology* 1028 Connecticut Ave.
- KATHLEEN DARNER, A.B.  
*Research Associate in Pharmacology* 2000 H St.

\* On war leave 1943-44

- CARL CALVIN DAUER, A.B., M.D., M.P.H. 3515 Livingston St.  
*Clinical Instructor in Medicine*
- DAVID DAVIS, A.B., M.D. 4857 Colorado Ave.  
*Associate in Oto-rhino-laryngology*
- WILLIAM THORNWALL DAVIS, M.D. 927 17th St.  
*Professor of Ophthalmology*
- \*JAMES FORRESTER DAVISON, A.B., LL.M., 49 Observatory Circle  
S.J.D.  
*Associate Professor of Law*
- MARTIN STEELE DAY, A.B. 756 11th St. NE.  
*Instructor in English*
- BENJAMIN FRANKLIN DEAN, JR., M.S., M.D. 3221 Patterson St.  
*Assistant Clinical Professor of Surgery; Acting  
Director of Health Administration; University  
Surgeon*
- RAUL D'ÊÇA, Ph.D. 2700 Q St.  
*Associate in Portuguese*
- ALAN THOMAS DEIBERT, A.M. 2124 I St.  
*Associate Professor of Romance Languages; Ad-  
viser to Students from Foreign Countries;  
Assistant Dean in the Junior College*
- FRANCIS COLT DEWOLF, A.B., LL.B. 3322 O St.  
*Lecturer on International Law*
- HERBERT HAROLD DIAMOND, M.D. 2480 16th St.  
*Clinical Instructor in Pediatrics*
- PAUL FREDERICK DICKENS, M.D. 4930 Sedgwick St.  
*Clinical Professor of Medicine*
- ‡WILLIAM WEBSTER DIEHL, Ph.D. 1512 N. McKinley Rd.  
*Adjunct Professor of Mycology* Arlington Co., Va.
- SAMUEL MAYER DODEK, A.M., M.D. 1730 I St.  
*Associate in Obstetrics and Gynecology*
- JOHN DONALDSON, Ph.D. 1601 Argonne Pl.  
*Professor of Political Economy*
- HARRY HAMPTON DONNALLY, A.M., M.D. High Acres, Conduit Rd.  
*Professor of Pediatrics*
- HARRY SAMUEL DOUGLAS, A.B., M.D. 1673 Columbia Rd.  
*Clinical Instructor in Obstetrics and Gynecology*
- HARRY FILMORE DOWLING, A.B., M.D. 2111 Bancroft Pl.  
*Clinical Professor of Medicine*
- \*HENRY GRATTAN DOYLE, A.M. 5500 33d St.  
*Professor of Romance Languages; Dean of  
Columbian College*
- \*MITCHELL DREESE, Ph.D.  
*Professor of Educational Psychology*

\* On war leave 1943-44.

‡ On leave of absence 1943-44.

JOSEPH YOUNG DREISONSTOK, B.S. COMMANDER, UNITED STATES NAVY <i>Professorial Lecturer on Navigation</i>	58-3 Chevy Chase Pkwy.
LYDIA DRIGGS, A.M. <i>Associate in Spanish</i>	756 Jackson Pl.
JAMES ALBERT DUSEBEEK, M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	2435 Tunlaw Rd.
ADDISON MCQUIRE DUVAL, M.D. <i>Associate in Pathology</i>	St. Elizabeth's Hospital
JUSTIN LINCOLN EDGERTON, A.B., LL.B. <i>Lecturer in Law; Clerk of the Moot Court</i>	2104 Ross Rd. Silver Spring, Md.
WATSON WILLIAM ELDRIDGE, Jr., M.D. <i>Associate in Medicine</i>	St. Elizabeth's Hospital
WILLIAM FEIGH ELLIS, A.B., LL.M. <i>Lecturer in Law</i>	19 Carvel Rd. Westmoreland Hills, Md.
ARTHUR PHILIP ENDRES, B.S. <i>Instructor in Physical Education for Men</i>	1819 P St. SE.
OTTO ANDERSON ENGL, A.B., M.D. <i>Clinical Instructor in Surgery</i>	3214 Virginia Blvd. Alexandria, Va.
*ALFRED ENNIS, M.S., E.E., D.ENG. <i>Assistant Professor of Electrical Engineering</i>	108 N. Columbia St. Arlington, Va.
JULIUS ROBERT EPSTEIN, M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	46-8 Fort Totten Dr. NE.
CLAYTON BERNARD ETHRIDGE, M.D. <i>Assistant Clinical Professor of Medicine</i>	2032 Belmont Rd.
JOHN ELLSWORTH EVERETT, A.B., M.D. <i>Clinical Instructor in Medicine</i>	6351 14th St.
PAUL JACOB EWERHARDT, M.D. <i>Clinical Instructor in Psychiatry</i>	1122 McKinley St.
FREDERICK MORRIS FEIKER, B.S. IN E.E., D.ENG. <i>Professor of Engineering Administration; Dean of the School of Engineering</i>	2137 Bancroft Pl.
ISAAC FELDMAN, B.S. <i>Instructor in Chemistry</i>	300 S. Garfield St. Arlington, Va.
RUSSELL JOSEPH FIELDS, B.S., M.D. <i>Assistant Clinical Professor of Dermatology and Syphilology</i>	2123 Bancroft Pl.
AUBREY DAVID FISCHER, M.D. <i>Clinical Instructor in Oto-rhino-laryngology</i>	3303 Woodley Rd.
ALMA FOGELBERG, Ph.D. <i>Instructor in Physiology</i>	106 W. Underwood St. Chevy Chase, Md.
JOHN PORTER FOLEY, Jr., Ph.D. <i>Assistant Professor of Psychology</i>	2039 New Hampshire Ave.

\* On war leave 1943-44.



- LEOPOLD HENRY FORSTER, Ph.G.  
*Instructor in Hospital Pharmacy* 2767 Woodley Place
- \*FRANK FORTUNATO, M.S.  
*Research Associate in Pharmacology*
- JAMES HAROLD FOX, A.M., Ed.D.  
*Professor of Education; Dean of the School of Education* 4301 Jenifer St.
- CLARENCE KENDALL FRASER, Ph.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology* 2700 Q St.
- WALTER FREEMAN, Ph.D., M.D.  
*Professor of Neurology* 4501 Linnean Ave.
- WILLIAM CULLEN FRENCH, Ph.D.  
*Professor of Education* Gaithersburg, Md.
- \*WILLIAM THOMAS FRYER, A.B., LL.B., J.D.  
*Professor of Law* 7007 Clarendon Rd.  
Edgemoor, Md.
- GEORGE ANTONY GAMOW, Physics D.  
*Professor of Theoretical Physics* 19 Thoreau Dr.  
Bethesda, Md.
- J. OTIS GARBER, A.M.  
*Lecturer on Public Administration* 6622 Braeburn Pkwy.  
Bethesda, Md.
- CHRISTOPHER BROWNE GARNETT, Jr.,  
Ph.D., Litt.D.  
*Associate Professor of Philosophy; Assistant Dean of Columbian College* 4624 N. Dittmar Rd.  
Country Club Hills, Va.
- RALPH EDWARD GIBSON, Ph.D.  
*Adjunct Professor of Chemistry* 415 Cumberland Ave.  
Chevy Chase, Md.
- EMILY ANNA MAY GODFREY, B.S. in Ed.  
*Research Associate in Pharmacology* 1255 Hollbrook Terrace NE.
- EDGAR LEONARD GOODMAN, M.D., M.M.S.  
*Assistant Clinical Professor of Ophthalmology* 2651 16th St.
- SPENCER GORDON, A.B., LL.B.  
*Adjunct Professor of Law* 2305 California St.
- LEA GENE GRAMLING, Ph.D.  
*Assistant Professor of Pharmacology and Pharmacognosy* 4141 N. Henderson Rd.  
Arlington, Va.
- \*WOOD GRAY, Ph.D.  
*Associate Professor of American History*
- STEWART MAXWELL GRAYSON, M.D.  
*Clinical Instructor in Surgery* 57-1 Kansas Ave.
- ANGUS MACIVOR GRIFFIN, Ph.D.  
*Assistant Professor of Bacteriology* 4103 Davis Pl.
- EDGAR DEUCHER GRIFFIN, A.B., M.D.  
*Associate in Psychiatry* St. Elizabeths Hospital
- ROBERT FISKE GRIGGS, Ph.D.  
*Professor of Botany* 39 E. Bradley Lane  
Chevy Chase, Md.

\* On war leave 1943-44.

# Staff of Instruction

XXXV

ROBERT HENRY GROH, B.S., M.D. <i>Clinical Instructor in Neurology</i>	1840 Burke St. SE.
MABEL HARLAKENDEN GROSVENOR, A.B., M.D. <i>Associate in Pediatrics</i>	2203 Wyoming Ave.
ROBERT CUSTIS GRUBBS, M.S., M.D. <i>Assistant Professor of Physiology</i>	827 Madison St.
CUSTIS LEE HALL, M.D. <i>Clinical Professor of Surgery</i>	3020 Harrison St.
ROSCOE WILLIS HALL, Ph.B., M.D. <i>Clinical Professor of Psychiatry</i>	St. Elizabeths Hospital
SIDNEY BARTLETT HALL, A.M., Ed.D., LL.D. <i>Professor of Education; Director of the Division of Extension</i>	8570 Broadbrook Dr. Bethesda, Md.
CHARLES ROBERT LEE HALLEY, A.B., M.D. <i>Clinical Professor of Medicine</i>	18 E. Bradley Lane Chevy Chase, Md.
IRA BOWERS HANSEN, Ph.D. <i>Associate Professor of Zoology</i>	7812 Custer Rd. Bethesda, Md.
BERNARD LAURISTON HARDIN, Jr., A.B., M.D. <i>Associate in Medicine</i>	328 P St.
* HAROLD FRIEND HARDING, Ph.D. <i>Associate Professor of Public Speaking</i>	
ROBERT HOWE HARMON, A.B., M.D. <i>University Physician</i>	3133 Connecticut Ave.
JEROME BLAINE HARRELL, M.D. <i>Clinical Instructor in Surgery</i>	53 Hamilton St.
FOREST KLAIRE HARRIS, Ph.D. <i>Professorial Lecturer in Electrical Engineering</i>	2124 Tunlaw Rd.
JOSEPH HARRIS, A.B., M.D. <i>Associate in Obstetrics and Gynecology</i>	2013 New Hampshire Ave.
WILLIAM PRESTON HAYNES, A.B., M.D. <i>Associate in Obstetrics and Gynecology</i>	3214 39th St.
WILLIAM HAYWARD, B.S. IN C.E. <i>Associate in Civil Engineering</i>	536 Quintana Pl.
LYDD WALTER HAZLETON, Ph.D. <i>Assistant Professor of Pharmacology</i>	1730 N. Troy St. Arlington, Va.
A. FIFE HEATH, M.D. <i>Associate in Medicine</i>	1833 Monroe St. NE.
ROBERT PORT HERWICK, Ph.D., M.D., LL.B. <i>Adjunct Clinical Professor of Medicine</i>	4801 Connecticut Ave.
MEREDITH BENJAMIN HESDORFFER, B.S., M.D. <i>Clinical Instructor in Medicine</i>	4607 Cheltenham Dr. Bethesda, Md.

\* On War leave 1918-41.

- JANE FROST HILDER  
*Lecturer in Education* 1309 Delafield Pl.
- ALAN HISEY, Ph.D.  
*Assistant Professor of Biochemistry* 1613 16th St.
- \*FRANK ARTEMAS HITCHCOCK, M.S. IN C.E.,  
C.E.  
*Professor of Civil Engineering; Director of War  
Training Program* 3551 Idaho Ave.
- JAMES IRVIN HOFFMAN, Ph.D.  
*Lecturer in Chemistry* 6422 Maple Ave.  
Chevy Chase, Md.
- PEARL HOLLY, M.S., M.D.  
*Associate in Pathology* 3925 Davis Pl.
- CHESTER WINFIELD HOLMES, Ed.D.  
*Adjunct Professor of Education* 809 Clallente Drive  
Alexandria, Va.
- FLORENCE EVERETT HOOPER, Ph.D.  
*Assistant Professor of Chemistry* 6321 Delaware St.  
Chevy Chase, Md.
- FRANK ADELBERT HORNADAY, M.S., M.D.  
*Associate Clinical Professor of Medicine; Consult-  
ing University Physician* Mayflower Hotel
- ALEC HORWITZ, M.S., M.D.  
*Assistant Clinical Professor of Surgery* 2719 Brandywine St.
- AVERETT HOWARD, A.M.  
*Instructor in English* 1 Scott Circle
- CHARLES PERRY HOWZE, M.D.  
*Associate in Urology* Chain Bridge Rd.  
McLean, Va.
- HENRY FURNESS HUBBARD, Ph.D.  
*Adjunct Professor of Psychology* 6318 32d St.
- CHARLES RANDOLPH HUGHES, JR., M.D.  
*Clinical Instructor in Medicine* 1352 S. Carolina Ave. SE.
- DON DOUGAN HUMPHREY, Ph.D.  
*Lecturer in Economics* 2924 Argyle Drive  
Alexandria, Va.
- THELMA HUNT, Ph.D., M.D.  
*Associate Professor of Psychology* 3700 Massachusetts Ave
- PHILIP WEATHERLY HUNTINGTON, M.D.  
COLONEL, MEDICAL CORPS, UNITED STATES  
ARMY  
*Professor of Military Science and Tactics* 102 Aspen St.  
Chevy Chase, Md.
- CHARLES HYNEMAN, Ph.D.  
*Professorial Lecturer on Public Administration* 4912 Riverdale Rd.  
Riverdale, Md.
- EDWARD IANNELLI, B.E.E.  
*Lecturer in Electrical Engineering* 110 Brandywine Pl.
- \*OLIVER JOHN IRISH, Ph.D.  
*Instructor in Biochemistry*
- MAURICE HAROLD IRVINE, Ph.D.  
*Assistant Professor of English* 4101 Maryland Dr.  
Brookmont, Md.

\* On war leave 1943-44.

# Staff of Instruction

xxxvii

DOROTHY STEINLE JAEGER, M.D. <i>Clinical Instructor in Pediatrics</i>	700 E. Capitol St.
RUSSELL JON JANSEN, M.D. <i>Associate in Obstetrics and Gynecology</i>	1835 J St.
BURNICE HERMAN JARMAN, A.M., Ed.D. <i>Associate Professor of Education</i>	1802 N. Danville St. Arlington, Va.
WILLIAM HERNDON JENKINS, M.D. <i>Clinical Professor of Oto-rhino-laryngology</i>	2548 Massachusetts Ave.
ARLIN REX JOHNSON, Ph.D. <i>Lecturer on Accounting</i>	1707 N. Greenfield St. Arlington, Va.
*ARTHUR FREDERICK JOHNSON, M.E., Ph.D. <i>Professor of Mechanical Engineering</i>	1208 S. Oakcrest Rd. Arlington, Va.
DON R. JOHNSON, LL.B., M.D. <i>Associate in Oto-rhino-laryngology</i>	120 Sunset Lane Kenwood, Md.
HERBERT WEBSTER JOHNSON, M.B.A., Ph.D. <i>Lecturer in Business Administration</i>	1614 17th St.
FRANCIS EDGAR JOHNSTON, Ph.D. <i>Professor of Mathematics</i>	1835 K St.
WILLIAM CRANE JOHNSTONE, JR., Ph.D. <i>Professor of Political Science; Dean of the Junior College</i>	365 University Terrace
ELIZABETH KAHLER, A.M., M.D. <i>Associate University Physician</i>	1901 Wyoming Ave.
HELEN GLADYS KAIN, B.S., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	3700 Massachusetts Ave.
PAULA REINES KAISER, M.B., Ch.B. <i>Clinical Instructor in Surgery</i>	2008 Bryant St. NE.
HOWARD FRANCIS KANE, A.B., M.D. <i>Professor of Obstetrics and Gynecology</i>	4941 Glenbrook Rd.
SOLOMON KATZENELBOGEN, M.D. <i>Clinical Professor of Psychiatry</i>	5921 Wilson Lane Bethesda, Md.
MORTON SELWYN KAUFMAN, A.B., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1429 Juniper St.
ELMER LOUIS KAYSER, Ph.D. <i>Professor of European History; Dean of University Students; University Marshal</i>	2921 34th St.
*LOUIS CLARK KEATING, Ph.D. <i>Associate Professor of Romance Languages</i>	
HARRY JOSEPH KEEGAN, B.M.E. <i>Lecturer in Mechanical Engineering</i>	1925 Bunker Hill Rd. NE.
RICHARD EDWARD KELSO, M.D. <i>Instructor in Pathology</i>	1824 Massachusetts Ave.
ISABELLE KENDIG, Ph.D. <i>Clinical Instructor in Psychiatry</i>	St. Elizabeths Hospital

\* On war leave 1943-44



RALPH DALE KENNEDY, Ph.D. <i>Professor of Accounting and Business Administration</i>	2528 N. Buchanan St. Arlington, Va.
IRVIN KERLAN, B.S., M.D., C.P.H. <i>Clinical Instructor in Medicine</i>	1919 19th St.
ALBERT SANTEE KERR, A.M. <i>Instructor in English</i>	1801 Key Blvd. Arlington, Va.
HARRY HYLAND KERR, M.D.C.M. <i>Clinical Professor of Surgery</i>	2400 Tilden St.
PEYTON ARMSTRONG KERR, Ph.D. <i>Lecturer in Economics</i>	421 Argyle Dr. Alexandria, Va.
GARBIS KEULEGAN, Ph.D. <i>Professorial Lecturer in Mechanical Engineering</i>	2302 Tunlaw Rd.
ARCHIBALD KING, A.M., LL.B., LL.D. <i>Lecturer in Law</i>	1518 28th St.
HAYDEN KIRBY SMITH, B.S., M.D. <i>Associate in Dermatology and Syphilology</i>	3300 Lowell St.
JAMES ROBERT KIRKLAND, A.B., LL.M. <i>Lecturer in Law</i>	1519 Underwood St.
FRANCES KIRKPATRICK, A.M. <i>Associate Professor of Home Economics</i>	2150 Pennsylvania Ave.
*DONALD CHENOWETH KLINE, B.Arch <i>Associate Professor of Art</i>	
DEWITT CLINTON KNOWLES, JR., M.S. <i>Associate Professor of Chemistry</i>	4426 Reservoir Rd.
GEORGE MARTIN KOEHL, A.M. <i>Associate in Physics</i>	515 Mansfield Rd. Silver Spring, Md.
*HOWARD HENRY KOSTER, M.S. in M.E. <i>Assistant Professor of Mechanical Engineering</i>	Sylvan Dr. Falls Church, Va.
JACOB KOTZ, M.D. <i>Clinical Professor of Obstetrics and Gynecology</i>	2824 Connecticut Ave.
ALAN FRANK KREGLOW, B.S., M.D. <i>Clinical Instructor in Medicine</i>	4000 Cathedral Ave.
CARL ALBERT KUETHNER, Ph.D. <i>Instructor in Biochemistry</i>	1242 Queen St. NE.
SOLOMON KULLBACK, Ph.D. <i>Lecturer in Statistics</i>	1259 Van Buren St.
HARRY MEREDITH KURTH, B.S. <i>Lecturer on Accounting</i>	2728 Blaine Dr. Chevy Chase, Md.
BENJAMIN FRANKLIN KYKER, A.M. <i>Adjunct Professor of Education</i>	Route 3 Vienna, Va.

\* On war leave 1943-44.

*MARCELLE LEMÉNAGER LANE, A.M. <i>Assistant Professor of Journalism</i>	2426 19th St.
†JOHN FRANCIS LATIMER, Ph.D. <i>Associate Professor of Classical Languages</i>	1746 K St.
HELEN BENNETT LAWRENCE, A.M. <i>Associate Professor of Physical Education for Women</i>	4208 Vacation Lane Arlington, Va.
GUY WHITMAN LEADBETTER, B.S., M.D. <i>Clinical Professor of Surgery</i>	4437 Cathedral Ave.
CHESTER ELWOOD LEESE, Ph.D. <i>Associate Professor of Physiology</i>	215 Kennedy St.
WOLFRAM KARL LEGNER, Ph.D. <i>Assistant Professor of German</i>	4315 2d Rd. N. Arlington, Va.
GEORGE PAUL LEMESHEWSKY, A.B., M.D. <i>Clinical Instructor in Medicine</i>	209 W. Birch St. Alexandria, Va.
MALCOLM FOSTER LENT, M.D. <i>Associate in Medicine</i>	1746 K St.
BERNARD WALTER LEONARD, B.S., M.D. <i>Associate in Medicine</i>	4915 Lowell St.
CHARLES NOBLE LEWIS, B.S., M.D. <i>Clinical Instructor in Medicine</i>	2000 F St.
EDWARD LEWIS, M.D. <i>Clinical Professor of Pediatrics</i>	2820 Connecticut Ave.
PAUL ABRAHAM LICHTMAN, M.D. <i>Clinical Instructor in Medicine</i>	2900 Connecticut Ave.
EDGAR WILLIAM LIGON, JR., Ph.D. <i>Assistant Professor of Pharmacology</i>	905 High St. Falls Church, Va.
JOHN EDWARD LIND, M.D. <i>Clinical Professor of Psychiatry</i>	St. Elizabeths Hospital
ALLEN SOUTHALL LLOYD, M.D. <i>Clinical Instructor in Surgery</i>	901 16th St.
WILLIAM MOORE LOMAN, A.M. <i>Lecturer in Psychology</i>	2813 McKinley Pl.
EUGENE LEONARD LOZNER, A.B., M.D. <i>Associate in Pathology</i>	3807 Rodman St.
EARL HILDRETH LUND, B.S. in C.E., C.E., LL.B. <i>Associate in Civil Engineering</i>	4315 Elm St. Chevy Chase, Md.
†JOHN HUGH LYONS, M.S., M.D. <i>Associate Clinical Professor of Surgery</i>	
COLIN MACKENZIE MACKALL, Ph.D. <i>Professor of Chemistry</i>	370 Massachusetts Ave.
WILLIAM MALKIN, B.S. <i>Associate in Civil Engineering</i>	2124 N. Brandywine St. Arlington, Va.

\* On leave of absence 1943-44

† On war leave 1943-44

BENJAMIN MANCHESTER, M.D. <i>Associate in Medicine</i>	1701 Varnum St.
NICHOLAS ATHANASIOU MANDELOS, M.D. <i>Clinical Instructor in Medicine</i>	1425 Rhode Island Ave.
JOHN BAYNE MARBURY, M.D. <i>Clinical Instructor in Medicine</i>	1051 Idaho Ave.
WILLIAM BERRY MARBURY, M.D. <i>Clinical Professor of Surgery</i>	2218 Q St.
CLOYD HECK MARVIN, PH.D., LL.D. <i>President of the University</i>	The University
JOHN RUSSELL MASON, B.S. IN L.S., A.M. <i>Librarian</i>	2017 I St.
MARTIN ALEXANDER MASON, B.S. IN ENG., DR. ING. <i>Lecturer in Mechanical Engineering</i>	205 Raymond St. Clevy Chase, Md.
HELEN McDONALD, B.S. IN PHAR. <i>Instructor in Pharmacy</i>	1629 Columbia Rd.
CLAUDE MATTHEWS McFALL, LL.B., PH.D. <i>Professor of Anatomy</i>	1460 Rhode Island Ave.
FRANCIS XAVIER McGOVERN, M.D. <i>Associate Clinical Professor of Surgery</i>	1815 I St.
CAROLYN LEHMAN McGOWAN, A.M. <i>Lecturer in Psychology</i>	1028 Connecticut Ave.
*JOHN ALBERT McINTIRE, A.B., LL.B. <i>Associate Professor of Law</i>	17 Carvel Rd. Westmoreland Hills, Md.
LAWSON MORELL McKENZIE, A.M. <i>Associate in Physics</i>	3945 Connecticut Ave.
PRESTON ALEXANDER McLENDON, B.S., M.D. <i>Clinical Professor of Pediatrics</i>	2802 R St.
FLORENCE MARIE MEARS, PH.D. <i>Associate Professor of Mathematics</i>	7304 Hampden Lane Bethesda, Md.
ROBERTO DANIEL MELÉNDEZ, A.B. <i>Associate in Spanish</i>	1224 Crittenden St.
*HOWARD MAXWELL MERRIMAN, PH.D. <i>Associate Professor of American Diplomatic History</i>	
RUDOLPH MICHEL, M.S. IN M.E. <i>Lecturer in Mechanical Engineering</i>	6518 40th Ave. University Park, Md.
‡CLARENCE ALTHA MILLER, LL.M. <i>Lecturer in Law</i>	4416 Greenwich Pkwy.
DANIEL BRUCE MOFFETT, A.B., M.D. <i>Professor of Oto-rhino-laryngology</i>	3900 Tunlaw Rd.

\* On war leave 1943-44.

‡ On leave of absence 1943-44.

CECIL RAFAEL MORALES, A.M. <i>Associate in Spanish</i>	5721 11th St. N. Arlington, Va. Westchester Apts.
JAMES WARD MORRIS, A.B. <i>Adjunct Professor of Law</i>	3918 W St.
JOHN EDWARD MORRIS, B.S., M.D. <i>Clinical Instructor in Medicine</i>	3547 Garrison St.
WILLIAM ROSS MORRIS, M.D. <i>Clinical Instructor in Surgery</i>	430 7th St. NE
EDITH ELIZABETH MORTENSEN, A.M. <i>Assistant Professor of Zoology</i>	1824 23d St.
JAMES OLIVER MURDOCK, Ph.B., LL.B. <i>Adjunct Professor of Law</i>	3311 45th St.
WALTER KENDALL MYERS, B.S., M.D. <i>Assistant Clinical Professor of Medicine</i>	315 Whittier St.
WILLIAM HENRY MYERS, A.M. <i>Associate Professor of Physical Education for Men</i>	
*CHARLES RUDOLPH NAESER, Ph.D. <i>Associate Professor of Chemistry</i>	8401 16th St. Silver Spring, Md.
CARMON ROBERT NAPLES, B.S., M.D. <i>Clinical Instructor in Ophthalmology</i>	1752 Lanier Pl.
ESTHER ALSYLVIA NATHANSON, A.B., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1709 Carwin Dr. Silver Spring, Md.
NEILS PETER NEILSON, Ph.D. <i>Adjunct Professor of Education</i>	216 Baltimore Ave. Takoma Park, Md.
HANS PHILIP NEISSER, Dr. Jur., Dr. Rer. Pol. <i>Visiting Lecturer in Economics</i>	4517 Western Ave.
FRED EVERETT NESSELL, A.B. <i>Registrar; Secretary of the Faculties</i>	1918 K St.
JULIUS SALEM NEVIASER, A.B., M.D. <i>Associate in Surgery</i>	1000 Maryland Ave. NE.
MARGARET MARY NICHOLSON, A.B., M.D. <i>Clinical Professor of Pediatrics</i>	5501 16th St.
AARON NIMETZ, A.B., M.D. <i>Associate in Pediatrics</i>	1735 New Hampshire Ave.
GEORGE NORDLINGER, A.B., M.D. <i>Associate in Obstetrics and Gynecology</i>	1801 I St.
BERNARD NOTES, M.D. <i>Associate in Obstetrics and Gynecology</i>	1726 I St.
JOEL NORTON NOVICK, M.S., M.D. <i>Clinical Instructor in Oto-rhino-laryngology</i>	1949 39th St.
ROGER O'DONNELL, Jr., A.B., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1854 Ontario Pl.
KATHARINE TAIT OMWAKE, Ph.D. <i>Visiting Lecturer in Psychology</i>	

\* On war leave 1943-44.



SAUL CHESTERFIELD OPPENHEIM, A.M., J.D., S.J.D. <i>Professor of Law</i>	1029 O St.
MARGARET OSBORN, M.S. <i>Instructor in Home Economics</i>	2150 Pennsylvania Ave.
MORTIMER OSTOW, A.M., M.D. <i>Clinical Instructor in Neurology</i>	St. Elizabeths Hospital
GILBERT OTTENBERG, A.M., M.D. <i>Clinical Instructor in Urology</i>	1415 Holly St.
WINFRED OVERHOLSER, A.B., M.D., Sc.D. <i>Professor of Psychiatry</i>	St. Elizabeths Hospital
RICHARD NORMAN OWENS, Ph.D., C.P.A. <i>Professor of Accounting and Business Administration</i>	3113 Key Blvd.
HOWARD POPE PARKER, A.B., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	3547 Chesapeake St.
KATHERINE ELIZABETH PARKER, A.M., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1456 Belmont St.
JOHN LOUIS PARKS, M.S., M.D. <i>Adjunct Clinical Professor of Obstetrics and Gynecology</i>	2827 Hillcrest Dr.
LELAND WILBUR PARR, Ph.D. <i>Professor of Bacteriology</i>	4447 Volta Pl.
RUSSELL CRANDLE PAYNE, A.B., M.D. <i>Clinical Instructor in Medicine</i>	3629 34th St. Mt. Rainier, Md.
THOMAS MARTIN PEERY, A.B., M.D. <i>Associate Professor of Pathology</i>	1941 S. Arlington Ridge Rd. Arlington, Va.
LOUIS BENJAMIN PELZMAN, B.S. LIEUTENANT COMMANDER, UNITED STATES NAVY <i>Associate in Civil Engineering</i>	2440 16th St.
*JAMES ALBERT PIKE, A.B., LL.B., J.S.D. <i>Lecturer in Law</i>	1200 S. Barton St. Arlington, Va.
CAROLYN SNYDER PINCOCK, A.B., M.D. <i>Clinical Instructor in Pediatrics</i>	4000 16th St.
*JAMES EBENEZER PIXLEE, B.S. <i>Professor of Physical Education for Men</i>	Westchester Apts.
JAMES DANIEL POWELL, Ph.D. <i>Associate in Romance Languages</i>	703 N. Nelson St. Arlington, Va.
MAURICE PROTAS, A.B., M.D. <i>Associate in Medicine</i>	4807 Colorado Ave.
MERLE IRVING PROTZMAN, Ph.D. <i>Professor of Romance Languages</i>	2500 S. Eads St. Arlington, Va.

\* On war leave 1943-44.

*MERLO JOHN PUSEY, A.B. <i>Lecturer in Journalism</i>	9 Albemarle St. Westmoreland Hills, Md.
LAWRENCE ELIAS PUTNAM, A.B., M.D. <i>Clinical Instructor in Medicine</i>	4124 Edmund St.
PAUL STIRLING PUTZKI, M.D. <i>Clinical Professor of Surgery</i>	1835 I St.
LOWELL RAGATZ, Ph.D. <i>Professor of European History</i>	5715 Midwood Rd. Bethesda, Md.
HERBERT PERCY RAMSEY, A.B., M.D. <i>Clinical Professor of Obstetrics and Gynecology</i>	3805 Tilden St.
JOHN ALTON REED, A.B., M.D. <i>Assistant Clinical Professor of Medicine</i>	3309 35th St.
MADALINE KINTER REMMLEIN, Ph.D. <i>Lecturer in Education</i>	606 Fontaine St. Alexandria, Va.
FREDERICK AUGUST REUTER, M.D. <i>Professor of Urology</i>	5170 Tilden St.
DUANE CASE RICHTMEYER, A.B., M.D. <i>Clinical Instructor in Surgery</i>	2310 S. June St. Arlington, Va.
BARTON WINTERS RICHWINE, M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	3306 Rittenhouse St.
ARCH LOCKHART RIDDICK, B.S., M.D. <i>Clinical Professor of Surgery</i>	2900 Glover Driveway
JOHN RANDOLPH RIGGLEMAN, Ph.D. <i>Lecturer in Statistics</i>	30 Drummond Ave. Chevy Chase, Md.
†HENRY GODDARD ROBERTS, A.M. <i>Assistant Professor of Public Speaking</i>	2423 E St.
ROLAND INWOOD ROBINSON, Ph.D. <i>Visiting Lecturer in Economics</i>	5327 Flint Dr.
ALDEN FRANKLIN ROE, Sc.D. <i>Assistant Professor of Bacteriology</i>	211 Willow Ave. Takoma Park, Md.
JOSEPH HYRAM ROE, Ph.D. <i>Professor of Biochemistry</i>	1352 Jefferson St.
FLOYD STERLING ROGERS, M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1150 Connecticut Ave.
GRETCHEN LOUISA ROGERS, Ph.D. <i>Assistant Professor of German</i>	2124 I St.
WALTER JOSEPH ROMEJKO, B.S., M.D. <i>Clinical Instructor in Ophthalmology</i>	5 Worthington Dr.
LOUIS ROSS, M.D. <i>Clinical Instructor in Medicine</i>	129 Kennedy St.

\* On leave of absence 1943-44.  
† On war leave 1943-44.

PERCEVAL SHERER ROSSITER, M.D. REAR ADMIRAL, RETIRED, MEDICAL CORPS, UNITED STATES NAVY <i>Chief of Staff Gallinger Municipal Hospital</i>	111 N. Alfred St. Alexandria, Va.
ADOLPH ROSTENBERG, JR., A.B., M.D.C.M. <i>Clinical Instructor in Dermatology and Syphilology</i>	1724 17th St.
GEORGE BYRON ROTH, A.B., M.D. <i>Professor of Pharmacology</i>	3814 T St.
JOHN ROWE, B.Ed., A.M. <i>Visiting Instructor in Secretarial Studies</i>	
GILBERT BRITT RUDE, M.D. <i>Clinical Instructor in Medicine</i>	3900 Military Rd.
WILLIAM CARSON RYAN, JR., Ph.D., Ed.D., LL.D. <i>Adjunct Professor of Education</i>	University of North Carolina Chapel Hill, N. C.
*WILLIAM WARREN SAGER, M.S., M.D. <i>Associate Clinical Professor of Surgery</i>	4428 Edmunds St.
ROBERT CARNELL SAMPSON, A.M. <i>Lecturer on Public Personnel Administration</i>	4113 W St.
GEORGE EDWARD SANGSTER, B.E.E. <i>Associate in Electrical Engineering</i>	140 N. Columbus St. Arlington, Va.
LEROY LEE SAWYER, A.B., M.D. <i>Assistant Clinical Professor of Oto-rhino-laryngology</i>	4911 Quebec St.
HERBERT HERMANN SCHOENFELD, M.D. <i>Associate Clinical Professor of Surgery</i>	1726 I St.
†VERYL GLADYS SCHULT, A.M. <i>Lecturer in Education</i>	Wardman Park Hotel
CHARLES AURELIUS SCHUTZ, M.D. <i>Clinical Professor of Pediatrics</i>	3422 Garfield St.
LEON SCHWARTZ, A.B., M.D., M.P.H. <i>Clinical Instructor in Medicine</i>	3933 R St. SE.
WILLIAM HENRY SEBRELL, JR., M.D. <i>Professorial Lecturer on Nutrition</i>	7119 Marion St. Bethesda, Md.
*RAYMOND JOHN SEEGER, Ph.D. <i>Associate Professor of Physics</i>	11 Wetherill Rd. Westmoreland Hills, Md.
EDWARD HENRY SEHRT, Ph.D. <i>Professor of German</i>	2811 35th St.
CARROLL LEONARD SHARTLE, Ph.D. <i>Professorial Lecturer in Psychology</i>	5129 Macomb St
SAMUEL HAZEN SHEA, A.B., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1028 Connecticut Ave.
ERNEST SEWALL SHEPARD, A.M. <i>Associate Professor of English</i>	Falls Church, Va.

\* On war leave 1943-44.

† On leave of absence 1943-44.

Staff of Instruction

xlv

ERNEST ALFRED WATSON SHEPPARD, M.D.C.M. <i>Associate Clinical Professor of Ophthalmology</i>	4931 Brandywine St.
SAMUEL ALEXANDER SILK, Ph.G., M.D. <i>Associate in Psychiatry</i>	St. Elizabeths Hospital
ALEXANDER SIMON, A.B., M.D. <i>Associate in Neurology</i>	St. Elizabeths Hospital
AUDLEY LAWRENCE SMITH, Ph.D. <i>Associate Professor of English</i>	4430 Volta Pl.
CARL HARRISON SMITH, JR., B.E.E. <i>Associate in Electrical Engineering</i>	1722 19th St.
NEUBERN SMITH, M.S. IN E.E., Ph.D. <i>Professorial Lecturer in Electrical Engineering</i>	5009 Keystone Ave. Bethesda, Md.
HECTOR GALLOWAY SPAULDING, B.S., LL.B., S.J.D. <i>Professor of Law</i>	1423 Madison St.
LLOYD ANCIL SPINDLER, Sc.D. <i>Lecturer in Zoology</i>	7721 Georgia Ave.
SYLVAN ADOLPH STEINER, M.D. <i>Clinical Instructor in Medicine</i>	6100 3rd St.
*GEORGE WINCHESTER STONE, JR., Ph.D. <i>Associate Professor of English</i>	1824 Monroe St.
GEORGE STROLLO, B.S. IN C.E., M.C.E. <i>Assistant Professor of Civil Engineering</i>	4104 N. Henderson Rd. Arlington, Va.
DONALD HARRISON STUBBS, A.M., M.D. <i>Associate in Surgery</i>	305 Mansion Dr. Alexandria, Va.
HAROLD GRIFFITH SUTTON, M.S. <i>Professor of Finance; Director of Admissions</i>	105 W. Underwood St. Chevy Chase, Md.
LOYD HALL SUTTON, B.S., LL.B. <i>Adjunct Professor of Law</i>	5601 Western Ave.
LEWIS KAIGLER SWEET, A.B., M.D. <i>Adjunct Clinical Professor of Pediatrics</i>	1915 N. Highland St. Arlington, Va.
HELEN TAYLOR, A.M. <i>Associate in Physical Education for Women</i>	2025 I St.
JAMES HENRY TAYLOR, Ph.D. <i>Professor of Mathematics</i>	7805 Custer Rd. Bethesda, Md.
ROBERT GEORGE TAYLOR, B.S., M.D. <i>Clinical Instructor in Medicine</i>	1150 Connecticut Ave.
IRA ROCKWOOD TELFORD, Ph.D. <i>Assistant Professor of Anatomy</i>	1447 Chapin St.
*EDWARD TELLER, Ph.D. <i>Professor of Physics</i>	
WILLIAM DANDRIDGE TERRELL, JR., M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	2174 N. Brandywine St. Arlington, Va.

\* On war leave 1943-44.



LAWRENCE JAY THOMAS, B.S., M.D. <i>Clinical Instructor in Medicine</i>	5023 K... Ave.
WILLIAM RAYMOND THOMAS, M.D. <i>Associate in Obstetrics and Gynecol...</i>	3343 Q... St.
*JOHN WILLIAM THOMPSON, JR., A.B. <i>Lecturer in Journalism</i>	
RICHARD KNIGHT THOMPSON, D.D.S. <i>Associate in Dental Surgery</i>	4843 Woodway Lane
THOMAS CARLTON THOMPSON, B.S., M.D. <i>Clinical Professor of Urol...</i>	2032 16th St.
LYMAN BROOKE TIBBETS, PHAR.D., M.D. <i>Clinical Instructor in Oto-rhino-lary...</i>	6520 Barnaby St.
JOHN ALBERT TILLEMA, PH.D., LL.M., S.J.D. <i>Associate Professor of Political Science</i>	1903 N. Harvard St. Arlington, Va.
ELIJAH WHITE TITUS, PHAR.D., M.D. <i>Clinical Professor of Obstetrics and Gynecology</i>	900 17th St.
RICHARD HENRY TODD, A.B., M.D. <i>Clinical Instructor in Pediatrics</i>	1835 I St.
PAUL GUTHRIE TOMALIN <i>Lecturer on Naval Architecture</i>	517 Braxton Pl. Alexandria, Va.
VERNA FINGER TORGERSON, M.S. <i>Instructor in Speech</i>	2420 16th St. N. Arlington, Va.
KATHRYN MILDRED TOWNE, A.M. <i>Assistant Professor of Home Economics</i>	2150 Pennsylvania Ave.
ROBERT GAY TRUMBULL, B.S. IN C.E. <i>Associate Professor of Mechanical Engineering</i>	2610 S. Lynn St. Arlington, Va.
FRED SALISBURY TUPPER, PH.D. <i>Associate Professor of English</i>	2320 N. Vernon St. Arlington, Va.
*JENNY EMSLEY TURNBULL, A.M. <i>Assistant Professor of Physical Education for Women</i>	
*WILLIAM LEWIS TURNER, A.M. <i>Instructor in English</i>	2124 I St.
AGNES KERR TWEEDIE, A.B., Ed.M. <i>Lecturer in Education</i>	2115 F St.
HARRIET ELIZABETH TWOMBLY, A.B., M.D. <i>Associate in Psychiatry</i>	St. Elizabeths Hospital
*BENJAMIN DOUGLASS VAN EVERA, PH.D. <i>Professor of Chemistry</i>	2124 I St.
MAURICE HART VAN HORN, PH.D. <i>Associate Professor of Chemistry</i>	132 N. Columbus St. Arlington, Va.
HOMER KING VANN, A.B., M.D. <i>Clinical Instructor in Oto-rhino-laryngology</i>	1811 Sudbury Rd.

\* On war leave 1943-44.

- WILLIAM CABELL VAN VLECK, A.B., LL.B., S.J.D. 4120 Harrison St.  
*Professor of Law; Dean of the Law School*
- RAE POTTER VAUGHN, A.M. 403 N. Piedmont St.  
*Associate in Romance Languages* Arlington, Va.
- ALBERTO VÁZQUEZ, Ph.D. 5721 11th Rd. N.  
*Associate in Spanish* Arlington, Va.
- JAMES ROSS VEAL, B.S., M.D. 6000 4th St.  
*Adjunct Clinical Professor of Surgery*
- DOROTHY HELENE VEON, A.M. 4607 Connecticut Ave.  
*Assistant Professor of Secretarial Studies*
- \*ROBERT CORBIN VINCENT, Ph.D.  
*Instructor in Chemistry*
- ‡LÜVERNE CRABTREE WALKER, A.M. 3107 Smith St.  
*Lecturer in Education*
- CARL HUGO WALTHER, B.E., M.C.E. 2100 I St.  
*Assistant Professor of Civil Engineering; Assistant to the Dean of the School of Engineering*
- \*CHESTER CHARLES WARD, B.S., LL.M. 4912 Hampden Lane  
*Associate Professor of Law* Bethesda, Md.
- LEON HUGH WARREN, A.B., M.D., M.S. IN MED. 1505 Highland Drive  
*Clinical Instructor in Dermatology and Syphilology* Silver Spring, Md.
- JOHN AUGUSTINE WASHINGTON, A.B., B.S., M.D. 2032 Belmont Rd.  
*Associate in Pediatrics*
- DONALD STEVENSON WATSON, Ph.D. Route 1  
*Associate Professor of Economics* Vienna, Va.
- JAMES WINSTON WATTS, B.S., M.D. 4661 Garfield St.  
*Clinical Professor of Neurosurgery*
- EDWARD LEONG WAY, Ph.D. 1426 21st St.  
*Instructor in Pharmacology*
- ‡RUTH KINCER WEBB, A.M. 5111 42d St.  
*Lecturer in Education*
- FRANK MARK WEIDA, Ph.D. 7130 Hampden Lane  
*Professor of Statistics* Bethesda, Md.
- SIMON WEINER, B.S., M.D. 100 Longfellow St.  
*Clinical Instructor in Medicine*
- JACOB JOSEPH WEINSTEIN, B.S., Ph.G., M.D. 2141 I St.  
*Clinical Instructor in Surgery*
- CARL DOUGLAS WELLS, B.D., Ph.D. 4923 15th St. N.  
*Associate Professor of Sociology* Arlington, Va.
- WARREN REED WEST, Ph.D. 5020 Sedgwick St.  
*Professor of Political Science; Assistant Dean of the School of Government*

\* On war leave 1943-44.

‡ On leave of absence 1943-44.

CHARLES STANLEY WHITE, M.D. <i>Professor of Surgery</i>	1801 I St.
WILFORD LENFESTEY WHITE, M.B.A., D.C.S. <i>Professorial Lecturer on Marketing</i>	3111 Nebraska Ave.
ALVA CURTIS WILGUS, Ph.D. <i>Professor of Hispanic American History</i>	3706 33d Pl.
RICHARD WALLACE WILKINSON, A.B., M.S., M.D. <i>Clinical Instructor in Ophthalmology</i>	1419 Whittier St.
EARL LARKIN WILLIAMS, A.M. <i>Associate in Mathematics</i>	Box 177 Gaithersburg, Md.
JOHN BREWSTER WILLIS, B.M.E. <i>Associate in Naval Architecture</i>	708 S. Pitt St. Alexandria, Va.
MEREDITH CHESTER WILSON, B.S. <i>Adjunct Professor of Education</i>	305 S. Dakota Ave. NE.
IRVING WOLFE WINIK, M.D. <i>Clinical Instructor in Medicine</i>	528 7th St.
SAMUEL NATHANIEL WRENN, Ph.D. <i>Associate Professor of Chemistry</i>	4 S. N. Thomas St. Arlington, Va.
WILLARD HAYES YEAGER, A.M. <i>Depew Professor of Public Speaking</i>	1644 1st St.
LAWSON EDWIN YOCUM, Ph.D. <i>Associate Professor of Botany</i>	4509 Western Ave.
JOHN MARTIN YOKLAVICH, A.M. <i>Instructor in English</i>	3503 10th St. NE.
DONNELL BROOKS YOUNG, Ph.D. <i>Professor of Zoology; Assistant Dean in the Junior College</i>	7128 Hampden Lane Bethesda, Md.
WILLIAM GLENN YOUNG, M.D. <i>Clinical Instructor in Urology</i>	3838 Garrison St.

## SEMINAR LECTURERS

### PHARMACY

FREDERICK JOHN CULLEN, PHAR.G., M.D. <i>Professorial Lecturer on Drug Manufacture</i>	810 18th St.
WARREN FALES DRAPER, A.B., M.D. <i>Professorial Lecturer on Public Health</i>	4710 25th St. Cherrydale, Va.
JAMES JOHNSON DURRETT, M.S., PHAR.G., M.D. <i>Professorial Lecturer on Drug Control Problems</i>	Route 1 Hyattsville, Md.
CARSON PETER FRAILEY, PHAR.D. <i>Professorial Lecturer on Industrial Pharmacy</i>	3704 Livingston St.

JAMES ALBERT HORTON, LL.B. <i>Professorial Lecturer on Drug Trade Regulations</i>	3216 Tilden St.
EVANDER FRANCIS KELLY, PHAR.D., Sc.D. <i>Professorial Lecturer on Pharmaceutical Organizations</i>	1928 S St.
JOHN CHRISTIAN KRANTZ, JR., Ph.D. <i>Professorial Lecturer on Pharmaceutical Research</i>	3401 Crossland Ave. Baltimore, Md.
GEORGE POTTER LARRICK <i>Professorial Lecturer on Drug Control</i>	4841 34th St. N. Arlington, Va.
JUSTIN LAWRENCE POWERS, Ph.D. <i>Professorial Lecturer on Official Drug Standards</i>	833 S. Barton St. Arlington, Va.
GEORGE CLEMENS RUIHLAND, M.D. <i>Professorial Lecturer on Hygiene and Sanitation</i>	1875 Plymouth St.
ROBERT LEE SWAIN, PHAR.D., LL.B. <i>Professorial Lecturer on Contemporary Pharmacy</i>	330 W. 42d St. New York City

## HYGIENE AND PREVENTIVE MEDICINE

CHARLES ARMSTRONG, B.S., M.D., Sc.D. <i>Professorial Lecturer in Preventive Medicine</i>	1801 Otis St. NE.
SARA ELIZABETH BRANHAM, Ph.D., M.D., Sc.D. <i>Professorial Lecturer in Preventive Medicine</i>	5523 Johnson Ave., Bethesda, Md.
ROLLA EUGENE DYER, A.B., M.D., LL.D. <i>Professorial Lecturer in Preventive Medicine</i>	12 North Dr. Bethesda, Md.
CHESTER WILSON EMMONS, Ph.D. <i>Professorial Lecturer on Medical Mycology</i>	Alberta Dr. Luxemburg, Md.
ALICE CATHERINE EVANS, M.S., M.D., Sc.D. <i>Professorial Lecturer in Preventive Medicine</i>	6601 Strathmore St. Chevy Chase, Md.
ROYD RAY SAYERS, A.M., M.D. <i>Professorial Lecturer on Industrial Hygiene</i>	607 Orinoco St. Alexandria, Va.
JAMES STEVENS SIMMONS, M.D., Ph.D., Sc.D. <i>Professorial Lecturer in Preventive Medicine</i>	3507 Rodman St.
ROSCOE ROY SPENCER, A.B., M.D. <i>Professorial Lecturer in Hygiene and Preventive Medicine</i>	6 West Dr. Bethesda, Md.
RAYMOND ALOYSIUS VONDERLEHR, M.D. <i>Professorial Lecturer in Preventive Medicine</i>	1862 Mintwood Pl.
WILLARD HULL WRIGHT, D.V.M., Ph.D. <i>Professorial Lecturer on Medical Zoology</i>	6624 32d Pl.



## ASSISTANTS

## ASSISTANTS IN RESEARCH AND INSTRUCTION

ABRAHAM ROBERT ABARBANEL, A.B., M.D. <i>Fellow in Obstetrics</i>	112 19th St. SE.
RAMON ALCERRO CASTRO, B.S., A.B., M.D. <i>Fellow in Neurology and Neurosurgery</i>	1708 New Hampshire Ave.
WILLIAM HENRY BAILEY, 3d. B.S. <i>Sanders Fellow in Biochemistry</i>	4217 46th St.
BEATRICE BISHOP BERLE, A.M., M.D. <i>Fellow in Medicine</i>	4000 Nebraska Ave.
JESUS MATA DE GREGORIO, M.D. <i>Fellow in Neurology and Neurosurgery</i>	Y.M.C.A.
MARK HUMMER LEPPER, A.B., M.D. <i>Fellow in Medicine</i>	203 Rosemont Ave. Alexandria, Va.
JEAN KELLY NIELSON, A.M. <i>Fellow in Bacteriology</i>	4216 2d Rd. N. Arlington, Va.
MYRNA JANE OESTERLING, M.S. <i>Fellow in Biochemistry</i>	Strong Hall
FLOYD LORANG SPARKS, A.B. <i>Teaching Fellow in Play Production</i>	2141 I St.

## TECHNICAL ASSISTANTS

JAMES EVERETT BOWES <i>Technician in Bacteriology</i>	5501 Huntington Pkwy. Bethesda, Md.
RICHARD STEBBINS GRAVES, A.B. <i>Laboratory Assistant in the School of Medicine</i>	2000 F St.
ESTELLE TREBERT GRISWOLD <i>Technician in Clinical Pathology</i>	Cabin John, Md.
ALLEN FREDERICK KINGMAN, Jr. <i>Technician in Biochemistry</i>	4000 Reno Rd.
CLARENCE WILBUR MILLER <i>Technician in Pathology</i>	4010 9th St. NE.
CAYETANO NAGAC, A.B. <i>Technician in Pathology</i>	1911 Pennsylvania Ave.
MARY LOUISE ROBBINS, A.M. <i>Laboratory Assistant in Bacteriology</i>	4913 Chevy Chase Blvd. Chevy Chase, Md.
WILLIAM EDWARD SCHMIDT, B.S. <i>Stock Clerk in the Department of Chemistry</i>	64 Flower Ave. Takoma Park, Md.
ANNA STEFFENS <i>Technician in Neurology</i>	1228 Oakcrest Rd. S. Arlington, Va.
LOUISA HARDING STUART, M.S. <i>Technician in Anatomy</i>	3446 Oakwood Terrace

*Staff of Instruction*

ii

ROLLAN SWANSON <i>Technical Assistant in Pharmacology</i>	724 C St. NE.
LOUISA WELLS <i>Orthoptic Technician</i>	2122 California St.
CAROLYN WENK <i>Technician in Pathology</i>	22 M-Kay Circle Bethesda, Md.
MORRIS WULFSON, M.D., C.P.H. <i>Laboratory Supervisor in Pathology</i>	Children's Hospital
HARVEY NICKLES WYNN, JR. <i>Technician in Physiology</i>	108 6th St. NE.

## ADMINISTRATIVE ASSISTANTS

### OFFICE OF THE PRESIDENT

Mildred Covey, A.B., M.S. in Ed., *Assistant to the Administrative Secretary*  
Jessie Bigelow Martin, A.B., *Editorial Assistant*  
Velma Mae Robinson, *Secretary in the Office of the President*  
Margaret Beauford Warwick, A.B., *Secretary in the Office of the President*

### OFFICES OF THE DEANS AND DIRECTORS

Anna Sellner Ayers, *Secretary to the Dean of the Junior College*  
Vivian Franklin Payne, A.B., *Secretary to the Dean of Columbian College*  
Loretta Mary Payne, *Secretary to the Chairman of the Graduate Council*  
Catherine Breen, *Secretary to the Dean of the School of Medicine*  
Anna Marie Bischoff, A.B., *Secretary to the Dean of the Law School*  
Helen Madigan, *Secretary to the Dean of the School of Engineering*  
Nina M. Booth, A.M., *Secretary to the Dean of the School of Education*  
Frances Stratton Lackey, B.S., *Secretary to the Dean of University Students*  
Betty Jean Dedick, *Secretary to the Director of the Division of Extension*  
Mary Louise Lansdale, *Secretary in the Office of the Dean of the Junior College*  
Virginia Rainey, *Secretary to the Director of Men's Athletics*

### OFFICE OF THE DIRECTOR OF ADMISSIONS

Adrienne Mann Duffy, *Assistant to the Director of Admissions*  
Louise Theresa Atkinson, A.B., *Evaluator*  
Margaret LeSturgeon Tymeson, A.B., *Evaluator*  
Ruth Ann Sinsabaugh, *Secretary to the Director of Admissions*

### OFFICE OF THE REGISTRAR

Florida Franklin Borchert, A.B., *Statistical Clerk*  
Frances Alfreda Barr, A.B., *Record Clerk*  
Betty Lou Trowbridge, *Transcript Clerk*  
Jeanne Ruth Sheely, *File Clerk*

### THE LIBRARY

Betty Hill Reavis, A.M., *Assistant Librarian*  
\*Mason Tolman, A.M., B.S. in L.S., *Assistant Librarian*

\* On war leave 1943-44.

### *Administrative Assistants*

lii

Isabella Frances Young, A.B., *Assistant Librarian, Medical Library*  
Anna Virginia Appich, A.B., *Secretary to the Librarian; Accessions Clerk*  
Anne von Ammon, *Assistant, Periodical Room*  
Mary Elizabeth Thompson, B.S., B.S. in L.S., *Cataloguer*  
Madora Jane Doherty, A.B., *Assistant Librarian, Law Library*  
Lois Bell, A.B., A.B. in L.S., *Assistant, Reserve Book Reading Room*

### OFFICE OF THE COMPTROLLER

Albert Eldridge Smith, B.C.S., *Accountant*  
Daniel John Tyrrell, *Cashier*  
Lamar Lyon Burton, B.S., *Disbursing Officer*  
Evelyn Broadfield Thomas, *Chief Assistant in the Office of the Cashier*  
Dorothy Marie Jones, *Assistant to the Comptroller*  
Charles George Ruhl, *Assistant in the Office of the Cashier*  
Beatrice Elizabeth Coffman, *Assistant in the Disbursing Office*  
Margaret Lillian Payne, B.S., *Secretary in the Office of the Comptroller*  
Jean Ann Crowther, *Clerk in the Office of the Cashier*  
Helen Valeska Ruble, *Clerk in the Disbursing Office*  
Marie Kauffman Leath, *Clerk in the Disbursing Office*

### OFFICE OF THE BUSINESS MANAGER

Jack Albert Jones, B.S., *Superintendent of Building Maintenance*  
George Dewey Eckert, *Superintendent of Shops*  
Milton Adam Schneider, *Supervisor of Stores*  
Henrietta Rosenblatt, *Assistant in Purchasing*  
Lilian Wright Smith, *Garden Consultant*  
Ernestine Dunmire Beaver, M.S., *Manager of the Student Club*  
Miriam Riggs Waffler, B.S., *Manager of the Faculty Dining Room*  
Anne Word Davies, *Assistant Manager of the Faculty Dining Room*  
Anice Lee Cecil, *Clerk in the Duplicating Bureau*  
DeLora Leone Fowler, *Clerk in the Office of the Business Manager*

### THE SCHOOL OF MEDICINE

Mary Louise Moore, *Secretary*  
Mary Frances Merz, A.B., *Secretary*  
Louise Ash, A.B., *Secretary*  
Dorothy Jean Simmons, *Secretary*  
Naomi Ellen Earl, *Secretary*



## THE UNIVERSITY HOSPITAL

Jane Ridenour Terry, R.N., *Superintendent of Nurses*  
Helen Elvira Swanson, *Secretary to the Medical Director*  
Catherine Elta Nichols, *Bookkeeper*  
Margaret Luttrell, *Assistant Bookkeeper*  
Willa Lillian Murray, A.M., *Social Worker*  
Catherine Evans, *Dispensary Clerk*  
Theodosia Foxwell Garnett, M.T., S.R.N., *Laboratory Supervisor*  
Margaret Stack, M.T., *Laboratory Technician*  
Joyce Sullivan Lepper, A.B., M.T., *Laboratory Technician*  
Leopold Henry Forster, Ph.G., *Pharmacist*  
William Grant Lawson, B.C.S., *X-Ray Technician*  
Mary Holden Philbrick, *Dietitian*  
Margaret Scruggs French, *Record Librarian*

## OFFICE OF THE ALUMNI SECRETARY

Alma Kenner, *Secretary*  
Lula Beane, *Clerk*

## INTERCOLLEGIATE ATHLETICS

\*John Rust Busick, A.B., *Director of Men's Athletics*  
\*John Davis Baker, B.S., *Football Coach*  
\*Raymond George Hanken, B.S., *Assistant Football Coach*  
Arthur David Zahn, A.B., *Basketball Coach*  
George Albert Lentz, *Trainer*

## MUSICAL ACTIVITIES

Robert Howe Harmon, A.B., M.D., *Director of the Glee Clubs*  
Grace Ruble Harmon, *Associate Director of the Glee Clubs*

## RESIDENCE AND SORORITY HALLS

Blanche Cromwell Patterson, *Hostess in the Hattie M. Strong Residence Hall for Women*  
Nell Bratt Buckley, A.B., *Hostess in Sorority Hall, 2129 G Street*  
Helen Madigan, *Hostess in Sorority Hall, 802 Twenty-first Street*

\* On war leave 1943-44.

THE UNIVERSITY



## HISTORY AND ORGANIZATION

### HISTORY

The idea of a university located in the Capital of the Nation was sponsored by George Washington, who during his public life urged the establishment of such an institution and who in his will left fifty shares of stock in the Potomac (Canal) Company for the endowment of a university to be established in the District of Columbia "to which the youth of fortune and talents from all parts thereof might be sent for the completion of their Education in all the branches of polite literature;— in arts and Sciences,—in acquiring knowledge in the principles of Politics & good Government".

It was George Washington's hope that the "General Government" would extend toward such an institution "a fostering hand". No steps were taken by Congress to carry out the provision of Washington's will, and the stock that he had bequeathed for the establishment of a university in the District of Columbia became valueless owing to the failure of the Potomac Canal properties.

Meanwhile, however, a movement was started by private persons under the leadership of Luther Rice to establish an institution of higher learning at the seat of the National Government for the education of the Baptist ministry and to afford general collegiate training. In 1819 an association was formed by Luther Rice, Obadiah B. Brown, Spencer H. Cone, and Enoch Reynolds for the purpose of raising funds to buy land for the use of the college.

A group of the Nation's leaders who were especially interested in Washington's idea became patrons of the college and contributed to funds raised for the purchase of land and erection of buildings. Among them were James Monroe, President of the United States; William H. Crawford, Secretary of the Treasury; John C. Calhoun, Secretary of War; William Wirt, Attorney General; Return J. Meigs, Postmaster General; and thirty-two members of the Congress.

Legally to implement the college a petition was made to Congress for the incorporation of "the General Convention of the Baptist Denomination in the District of Columbia for evangelical and literary purposes". This petition was denied by Congress, on April 26, 1820, because of its sectarian character.

Failing to obtain a denominational charter, members of the association enlarged their objective to embrace national aims, and with the sponsorship of Government leaders there was presented in Congress a bill for the incorporation of "the Columbian Society for literary purposes", it being proposed to realize in this way "the aspirations of Wash-



ington, Jefferson and Madison for the erection of a university at the seat of the federal government".

Acting upon this second petition, on February 9, 1821, Congress chartered Columbian College in the District of Columbia, inserting in the charter by special action the provision "That persons of every religious denomination shall be capable of being elected Trustees; nor shall any person, either as President, Professor, Tutor or pupil, be refused admittance into said College or denied any of the privileges, immunities or advantages thereof, for or on account of his sentiments in matters of religion".

Thus Columbian College in the District of Columbia was chartered by Congress as one of the early nonsectarian institutions of higher learning in the United States, under the distinguished favor of President James Monroe and members of his Cabinet.

A tract of approximately forty-seven acres, extending about one-half mile northwest of Boundary Street (Florida Avenue) between 14th and 15th Streets, was purchased and by 1822 the main building was completed sufficiently to use.

Two years later, when the first Commencement was held on December 15, 1824, Congress and the Supreme Court adjourned their sessions to enable their members to attend the exercises. President Monroe, John Quincy Adams, John C. Calhoun, Henry Clay, and the Marquis de Lafayette headed the eminent company in attendance.

The School of Medicine, established in 1821, was formally opened in 1825 and has been in continuous operation since that time. The Law School, organized in 1826, was discontinued the following year, and was reestablished in 1865. It is the oldest law school in Washington.

By an act of Congress of March 3, 1873, the name of the college was changed to "Columbian University", in recognition of the enlarged scope of the institution. The following year the University was moved from its first location on "College Hill", now Columbia Heights, to the new University Hall built for it at Fifteenth and H Streets. Near-by buildings accommodated the School of Medicine.

For a period of six years, from 1898 to 1904, the University was placed under control of the Baptist Denomination. In 1904 an act restoring the original secular character of the University and authorizing change of name to The George Washington University was passed by Congress.

Subsequently all the colleges, schools, and divisions of the University except the School of Medicine, which is situated on H Street between Thirteenth and Fourteenth Streets NW., were brought together at the present location in the city block bounded by Twentieth, Twenty-first, G, and H Streets NW., and in the blocks adjacent.

In 1930 a new plan of academic organization for the liberal arts work was effected. The Junior College was established, comprising the

work of the freshman and sophomore years. The junior and senior years were retained in Columbian College, which was designated the senior college of letters and sciences. As a further step, the year of study leading to the Master's degree was separated from the graduate work for the Doctor's degree and assigned to Columbian College. The Graduate Council was organized to administer the work for the degree of Doctor of Philosophy. These innovations were accompanied by the establishment of a carefully controlled independent study plan, the grouping of departments of instruction under the divisional type of organization, and the institution of a new plan of administration both for the undergraduate major and for the Master's work.

#### THE COLLEGES, SCHOOLS, AND DIVISIONS

The George Washington University includes thirteen colleges, schools, and divisions, as follows: the Junior College; Columbian College, the senior college of letters and sciences; the Graduate Council; the School of Medicine; the Law School; the School of Engineering; the School of Pharmacy; the School of Education; the School of Government; the Division of University Students; the Division of Extension; the Inter-American Center; and the Summer Sessions.

#### ACADEMIC STATUS

The George Washington University is on the approved list of the Association of American Universities, the standard accrediting body for the United States. This fact not only assures to students the academic standards of this accrediting body, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women.

The Law School is a charter member of the Association of American Law Schools and is approved by the Council of Legal Education of the American Bar Association. The School of Medicine is a member of the Association of American Medical Colleges, is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association, and is accredited for all its work by the Combined (Royal) Medical Examining Boards in England. The School of Pharmacy is accredited by the American Council on Pharmaceutical Education and is a member of the American Association of Colleges of Pharmacy. The School of Engineering is on the accredited list of the Engineers' Council for Professional Development.

## LOCATION

The George Washington University is in downtown Washington, four blocks west of the White House and east of the Potomac River with its extensive parkway. Within a few blocks are many of the departments of the Government, including the Department of State, the Department of the Treasury, the Department of War, the Department of Justice, the Department of the Navy, the Department of the Interior, the Department of Agriculture, the Department of Commerce, and the Department of Labor. The Corcoran Gallery of Art, the Pan American Union Building, and the National Academy of Sciences are also near by, and the Capitol, the Library of Congress, and the National Gallery of Art are readily accessible to the University.

## GOVERNMENT

The government and general educational management of The George Washington University are vested in a self-perpetuating Board of Trustees, with the President of the University as member *ex officio*. The members of the Board are named for a period of three years and are divided into three classes. The members of one class are elected at each annual meeting to fill the places of the members whose terms of office expire. Two members of each class are nominated by the Alumni Association.

## ENDOWMENT

The endowment of the University is \$2,515,108. This figure does not include funds temporarily functioning as endowment.



## EDUCATIONAL FACILITIES

### BUILDINGS

Buildings, grounds, and equipment are valued at approximately \$6,000,000.

The buildings of the Junior College, Columbian College, the Graduate Council, the Law School, the School of Engineering, the School of Pharmacy, the School of Education, the School of Government, and the Division of University Students are grouped in the vicinity of Twenty-first and G Streets NW. The School of Medicine, the University Hospital, and the Dispensary are situated at Fourteenth and H Streets NW. The buildings of the University are as follows:

Corcoran Hall, 725 Twenty-first Street. Named in honor of the late William W. Corcoran, benefactor of the University and a former member of the Board of Trustees. Office of the Comptroller; offices of the School of Pharmacy; the School of Engineering; the chemistry, electrical engineering, pharmacy, and physics laboratories; classrooms.

Faculty Club House, 714 Twenty-first Street.

Gymnasium, 2010-12 H Street.

Hall of Government, 710 Twenty-first Street. The gift of Mrs. Henry Ayah Strong, Trustee of the University. Offices of the School of Government, of the departments of Business Administration, Economics, History, Political Science, and Statistics.

Hospital and Dispensary, 1330 H Street.

International House, 2121 G Street. Offices of the Adviser to Students from Foreign Countries and the Director of the Inter-American Center; club rooms.

Lisner Auditorium, 730 Twenty-first Street. The gift of Abram Lisner, late Trustee of the University. The Auditorium; offices and classrooms of the Department of Speech.

Mechanical Engineering Building, 735 Twenty-first Street. Offices of the School of Engineering; engineering testing laboratories, general laboratories, drafting rooms, and classrooms.

Office of the President, 2003 G Street.

School of Medicine, 1335 H Street. Offices of the Staff of the School of Medicine; anatomy, bacteriology, biochemistry, histology and embryology, pathology, pharmacology, and physiology laboratories; the Medical Library; lecture rooms; classrooms; students' rooms.

Sorority Halls:

2129 G Street, Apartments of Pi Beta Phi, Sigma Kappa, Phi Mu, Alpha Delta Pi, Delta Zeta, Zeta Tau Alpha, and Kappa Kappa Gamma sororities.

802 Twenty-first Street, Apartments of Chi Omega and Kappa Delta sororities.

Stockton Hall, 720 Twentieth Street. Named in honor of the late Rear Admiral Charles Herbert Stockton, President of the University from 1910 to 1918. Offices, library, and lecture halls of the Law School.

Staughton Residence Hall for Women, 707 Twenty-second Street. Named in honor of William Staughton, the first President of the University (1821-1827).



Strong Residence Hall for Women, 625 Twenty-first Street. Named in honor of the donor, Mrs. Henry Alvah Strong.

University Library, 2023 G Street. The gift of Abram Lisner, late Trustee of the University. The library; rooms of the Board of Trustees and the Graduate Council.

Woodhull Building, 2033 G Street. Gift of the late General Maxwell Van Zandt Woodhull, former Trustee of the University. Offices of the Director of Personnel Guidance, the Alumni Secretary; University Women's Club.

Building A, 2026 G Street. Offices of the department of Romance Languages.

Building B, 2024 G Street. Laboratories and classrooms of the Department of Home Economics.

Building C, 2029 G Street. Offices of the Registrar, the Director of Admissions, the Dean of the Junior College, and the Dean of Columbian College; offices and laboratories of the departments of Biology, Botany, and Zoology; the Student Club; classrooms.

Building D, 2013 G Street. Offices of the Dean of University Students, the Dean of the School of Education, and the Business Manager; offices of the departments of Art, Classical Languages, Education, English, Germanic Languages, Mathematics, Philosophy, Psychology, and Secretarial Studies; classrooms.

Building F, 705 Twentieth Street. Offices of the Director of the Division of Extension, and the Department of Sociology; office of student publications.

Building G, 712 Twentieth Street. Offices of the University Physician for Women and of the Department of English.

Building H, 714-16 Twentieth Street. Offices and locker rooms of the Department of Physical Education for Women.

Building I, 716 Twenty-first Street. Offices of the Department of Physical Education for Men.

Building J, 718 Twenty-first Street. Pharmacy research laboratories.

Building L, 2131 G Street. Offices of the Press Bureau, the Student Life Committee, student organizations; engineering drafting rooms; heating and ventilating, soils, mechanics, and welding laboratories.

### THE UNIVERSITY LIBRARY

The University Library contains more than 150,000 volumes. The well equipped Library building houses all of the library except the law and medical collections. Over 5,000 bound volumes are added annually and approximately 750 periodicals and publications of learned societies are received currently. Among the special collections of the Library are the Richard Heinzel Collection of Germanic philology and literature, the Curt Wachsmuth Collection of Greek and Roman literature, archeology and history; the Mount Vernon Collection on political history, international law, and the social sciences; a representative collection of Spanish American books, the gift of the governments of Hispanic America; the Chauncey Mitchell Depew Public Speaking Collection, the gift of the late Mrs. Depew; and the Art Collection, which contains about 1,000 volumes made available by the American Institute of Architects, and the 7,500 mounted photographs of the Russell Sturge Collection.

## OTHER LIBRARY FACILITIES

The student has access also to the Library of Congress; the Public Library of the District of Columbia and its branches; the Library of the Carnegie Endowment for International Peace; the Library of the Pan American Union; the Library of the Bureau of Railway Economics; the Library of the United States Department of Agriculture, with its scientific departmental collections; the Library of the United States Office of Education; the Army Medical Library; the Library of the Smithsonian Institution; and many of the other great special collections of the government departments.

## GOVERNMENTAL INSTITUTIONS ACCESSIBLE TO STUDENTS

The Congress of the United States has made the scientific resources of the Government accessible to students under the terms of the following joint resolution, approved April 12, 1892:

*Resolved by the Senate and House of Representatives of the United States of America, in Congress assembled,* That the facilities for research and illustration in the following and any other Governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to-wit:

- One. Of the Library of Congress.
- Two. Of the National Museum.
- Three. Of the Patent Office.
- Four. Of the Bureau of Education.
- Five. Of the Bureau of Entomology.
- Six. Of the Army Medical Museum.
- Seven. Of the Department of Agriculture.
- Eight. Of the Fish Commission.
- Nine. Of the Botanic Gardens.
- Ten. Of the Coast and Geodetic Survey.
- Eleven. Of the Geological Survey.

## ADMISSION

All departments of the University accept men and women.

Students may enter any college, school, or division of the University except the School of Medicine at the beginning of the fall term, the winter term, or either session of the summer term.

Entrance to the School of Medicine in 1943-44 is permitted only at the opening of terms beginning in November 1943 and September 1944.

### GENERAL ADMISSION REQUIREMENTS

The following factors are considered in determining the eligibility of an applicant for admission:

1. The adequacy of previous academic work as preparation for the course of study now contemplated—including quantity and quality of work and the standing of the institution in which it was done.
2. The aptitude of the student for the course contemplated.
3. The character of the student.

The University reserves the right to refuse admission to any student who has a previous academic record of such grade as to create doubt of his ability to pursue college work successfully, or who for any other reason would not be a desirable student.

### APPLICATION FOR ADMISSION

An applicant for admission must obtain from the Office of the Director of Admissions an application blank which he must fill out completely and return.

A recent photograph, with signature, of the applicant must be attached to the blank.

*To insure prompt action, applications should be filed not later than July 1 for the fall term, January 1 for the winter term, and May 1 for the summer term. Applications for admission to the School of Medicine\* should be filed as far in advance as possible because qualified applicants far outnumber the capacity of the School.*

An applicant from a secondary school must send the high school record form provided by the University to his high school principal with the request that the principal fill out the form and mail it direct to the Office of the Director of Admissions.

An applicant who has previously attended an institution of higher learning must request the registrar of that institution to mail directly

\* A fee of \$3 to defray the costs of completing the records for final consideration for admission to the School of Medicine must accompany each application.



to the Office of the Director of Admissions a transcript of his record. If he has attended more than one such institution he must request the registrar of each institution to send to the Office of the Director of Admissions a transcript of his record, *even though credits were not earned*, together with an honorable dismissal from the institution last attended.

## METHODS OF ADMISSION

### FROM SECONDARY SCHOOLS

An applicant from a secondary school may be admitted by certificate or examination.

#### By Certificate

A certificate of graduation with a minimum of fifteen "units"\* from an accredited secondary school and the recommendation from the principal of the secondary school that the applicant is prepared to undertake college work will be accepted subject to the following conditions:

1. If the school is accredited by the regional accrediting association the student must rank not lower than the fourth fifth of his class.

2. If the school is not listed by the regional accrediting association, but has been accredited by the state accrediting agency, the student must rank in the upper two fifths of his class. The Committee on Admission and Advanced Standing may review the case of a student in the third or fourth fifth and, when such action is warranted by evidence of progress in the last two years of work, may permit such a student to take a special aptitude test, from the results of which the committee will determine his eligibility or ineligibility.

#### By College Entrance Board Examinations

An applicant who cannot be admitted by certificate may qualify by passing satisfactorily College Entrance Board examinations as prescribed by the Director of Admissions. These examinations are given at The George Washington University on September 8, 1943; December 4, 1943; April 15, 1944; and June 3, 1944.

Arrangements for the examinations should be made with the College Entrance Examination Board, 431 West 117th Street, New York City, not less than one month before the date of the examinations.

### FROM HIGHER INSTITUTIONS†

An applicant for advanced standing is admitted upon the presentation of satisfactory credentials from an accredited institution of higher learning. The student must be in good standing as to scholarship and conduct.

\* A unit represents a year's study in a secondary school subject, including in the aggregate not less than 120 fifteen-minute periods of prepared classroom work.

† The University reserves the right to refuse advance credit in whole or in part if it provisionally. Credit so given may be withdrawn for subsequent poor work.



and must be eligible to return to the previously attended institution in the term for which he seeks admission to this University.

If the transcript of record from such an institution includes the record of his secondary school work, it is not necessary for the applicant to have forwarded a separate record directly from the principal of the secondary school. High school work is considered only as fulfilling entrance requirements; it is never credited toward advanced standing.

Properly certified courses taken at accredited colleges or universities may be applied toward a degree at this University, subject to the curriculum requirements and regulations of the school or college to which admission is sought. Work of low pass grade (such as *D* or the equivalent) may not be considered for transfer.

## ENTRANCE REQUIREMENTS

### THE JUNIOR COLLEGE

An acceptable certificate of graduation from an accredited secondary school, or the satisfactory passing of College Entrance Board examinations selected with the approval of the Director of Admissions is required. (See "Methods of Admission".)

*Distribution of Units for All Curricula except Premedical.*—Except for admission to the premedical curriculum, certification by the principal that the student has satisfied all curriculum requirements of the school will be accepted in lieu of any prescribed distribution of units. Attention is called, however, to the necessity of completing stated prerequisite studies during the secondary school period for admission to certain curricula. For a statement of the foreign-language requirements, see page 54.

*Distribution of Units for the Premedical Curriculum.*—The several state medical boards govern the granting of licenses to practice; hence their requirements as to high school credits must be met exactly. The fifteen units required must include three in English, two in one foreign language, one in algebra, one in geometry, one in history, and one in science (botany, chemistry, physics, or zoology). Eleven of the units offered must be in the above subjects.

### COLUMBIAN COLLEGE (THE SENIOR COLLEGE)

Two years of Junior College work leading to the Junior Certificate, or the lower-division work in institutions not organized on the junior-senior-college plan, following a specified curriculum, meet the minimum requirements of Columbian College. In addition, however, scholarship requirements for admission may be set somewhat higher than those for graduation from the Junior College.

### For the Bachelor's Degrees

*Bachelor of Arts.*—A Junior Certificate based on curriculum A-I\* in the Junior College, or the equivalent (see page 52 and table facing page 56), is required.

*Bachelor of Science.*—A Junior Certificate based on curriculum A-II in the Junior College, or the equivalent (see page 52 and table facing page 56), is required.

### For the Master's Degree

An approved Bachelor's degree from an accredited higher institution is required. A student from an unaccredited institution may be admitted at the discretion of the Committee on Admission and Advanced Standing, but he will be required to take such extra work above the minimum requirements as may be prescribed. A superior quality of work in the major field is essential.

Applications for admission must be approved by the department or division and by the Dean.

*Master of Arts.*—The student's undergraduate curriculum must include a program of study substantially equivalent to a major in his chosen field, together with an appropriate distribution of courses in other fields, or he must complete this prerequisite work in addition to that required for the Master's degree.

*Master of Science.*—The student's undergraduate curriculum must include the equivalent of the undergraduate major of the scientific department under which he desires to work.

### THE GRADUATE COUNCIL

*Doctor of Philosophy.*—The student must possess an adequate academic preparation for advanced study in the proposed field, as evidenced by approved Bachelor's and Master's degrees, or the equivalent, together with acceptable personal qualities and capacity for creative work.

### THE SCHOOL OF MEDICINE

*Doctor of Medicine.*—Sixty credit hours of work, exclusive of physical education, in an accredited higher institution are required. Premedical college requirements must be completed.

### Specific Educational Requirements

#### SECONDARY SCHOOL REQUIREMENTS

Of the fifteen secondary school units required, three must be in English, two in one foreign language (ancient or modern), one in algebra,

\* A Junior Certificate based on curriculum A-II is acceptable for the combined Bachelor of Arts and Doctor of Medicine degrees. For details see "Curriculum Requirements", under Columbian College.

one in geometry, one in history, and one in science (botany, chemistry, physics, or zoology). Eleven of the units offered must be in English, foreign language, mathematics, science, and history.

#### PREMEDICAL COLLEGE REQUIREMENTS

##### SIXTY CREDIT HOURS

1. Chemistry, sixteen credit hours as follows: (a) eight credit hours in general inorganic chemistry, of which at least four credit hours are laboratory work (qualitative analysis may be counted as general inorganic chemistry); (b) eight credit hours or a one year college course of organic chemistry, including laboratory work.
2. Physics, eight credit hours, of which at least two credit hours are laboratory work. It is recommended that this course be preceded by one in trigonometry.
3. Biology, eight credit hours, of which at least four credit hours are laboratory work. This requirement may be satisfied by a course of eight credit hours in either general biology or zoology, or by four credit hours each in zoology and botany, but not by botany alone.
4. English composition and literature, six credit hours: the usual introductory college course or the equivalent. The student should develop facility in speaking and writing English.
5. Modern foreign language: a reading knowledge, preferably of French or German.
6. Electives. It is recommended that the remaining credit hours required include: (a) comparative vertebrate anatomy; (b) qualitative and quantitative chemical analysis; (c) social science and psychology.

#### Advanced Standing

A student who has satisfactorily attended one or two years at any other "class A" medical school, and who has the necessary preliminary educational requirements, may be admitted to advanced standing.

#### THE LAW SCHOOL

##### For the Degrees in the Professional Course

*Bachelor of Laws*.—During the present national emergency, not less than one half the work necessary for graduation from an approved college or university is required.

*Juris Doctor*.—The degree of Bachelor of Arts or the equivalent from an approved college or university is required.

##### ADVANCED STANDING

Advanced standing toward the degree of Bachelor of Laws may be granted only for work successfully completed in other law schools which are members of the Association of American Law Schools.



Advanced standing toward the degree of Juris Doctor will not be granted for work in other law schools.

#### For the Degrees in the Graduate Course

*Master of Laws.*—Not less than two years of college work in an approved college or university and the degree of Bachelor of Laws from an approved law school are required.

*Doctor of Juridical Science.*—The following are required: (1) the degree of Juris Doctor from this Law School; or (2) the degree of Bachelor of Arts from an approved college, the degree of Bachelor of Laws or the equivalent, earned with high rank, from an approved law school, outstanding capacity for scholarly work in the field of law, and acceptance as a candidate by the Dean's Council of the Law School.

#### Unclassified Students

A person eligible for admission to regular standing but not a candidate for a degree may, at the discretion of the Dean, be admitted as an unclassified student.

A person who is in good standing as a candidate for a degree in another approved law school may, at the discretion of the Dean, be admitted as an unclassified student. Work taken by an unclassified student will not be accepted for credit toward a degree at this Law School.

#### THE SCHOOL OF ENGINEERING

*Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, Bachelor of Science in Engineering.*—An acceptable certificate of graduation from an accredited secondary school, or the satisfactory passing of College Entrance Board examinations in secondary school subjects selected with the approval of the Director of Admissions is required.

Nine and one-half of the fifteen units required for entrance must be distributed as follows: three in English, two in algebra, one in plane geometry, one-half in plane trigonometry, one in physics or chemistry, and two in one foreign language or history. A graduate of an approved high school who does not offer for admission the particular subjects required for the engineering curriculum, but who does present not less than fifteen acceptable units, may be admitted on condition. If such deficiency in the distribution of units does not exceed two units. If the deficiency is more than two units, it is frequently possible to admit an otherwise qualified student to the Junior College (liberal arts college) as an unclassified student for such period as may be necessary to permit him to make up such units by taking college courses designed for this purpose.



## THE SCHOOL OF PHARMACY

*Bachelor of Science in Pharmacy.*—A Junior Certificate based on the curriculum in Pharmacy\* in the Junior College, or the equivalent is required.

A student who has received a Bachelor's degree from an accredited institution or who has completed work in the general cultural or foundational subjects of the pharmacy curriculum may be admitted to advanced standing. No more than one year of advanced standing will be granted a student from any institution other than an accredited college of pharmacy.

## THE SCHOOL OF EDUCATION

## For the Bachelor's Degrees

*Bachelor of Arts in Education, Bachelor of Science in Home Economics, Bachelor of Science in Physical Education.*—A Junior Certificate based on curriculum D-I,\* D-II,\* or D-III-IV\* in the Junior College, or the equivalent from another accredited higher institution, or a certificate of graduation from an approved normal school or the equivalent is required.

## For the Master's Degree

*Master of Arts in Education.*—A Bachelor's degree from an accredited institution, or the completion of a course of study that is the equivalent is required. A student from an unaccredited institution whose work is judged by the Faculty to be not more than twelve credit hours short of that required for an approved Bachelor's degree may remove his deficiencies while registered for the Master's degree.

## For the Doctor's Degree

*Doctor of Education.*—The degree of Master of Arts in Education or the equivalent, and at least three years of satisfactory educational experience are required.

## THE SCHOOL OF GOVERNMENT

## For the Bachelor's Degree

*Bachelor of Arts in Government.*—A Junior Certificate based on curriculum E\* in the Junior College, or the equivalent is required.

## For the Master's Degree

*Master of Arts in Government, Master of Arts in Public Personnel Administration.*—A Bachelor's degree from an accredited institution, or evidence of a course of study that is judged by the Faculty to be the

\* See pages 52 and 53 and the chart facing page 57.

equivalent is required. A student from an unaccredited institution may be admitted at the discretion of the Dean's Council, but he will be required to take such extra work above the minimum requirements as may be prescribed.

The course of study pursued for the Bachelor's degree must be approved by the Dean as having provided the proper basic training. If this course of study is deemed inadequate, additional undergraduate work will be required. The Dean may permit deficiencies to be made up concurrently with work for the degree. A superior quality of work in the major field of the undergraduate study is required.

#### THE DIVISION OF UNIVERSITY STUDENTS

The student who is twenty-one years of age or over (or in special cases arising out of the national emergency, nineteen years of age or over) and who has not attended another institution within the year preceding his application to this University may register without filing records.

The student twenty-one years of age or over who has attended another institution within the year preceding application to this University must request a statement of good standing and honorable dismissal from the last institution attended.

The student under twenty-one years of age must submit complete and satisfactory credentials.

In special instances, with the permission of the instructor, a person may be registered as an "auditor" in a class without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance.

For the adult student who does not present the work of a satisfactory high school certificate, a program of studies of college grade may be outlined by the Office of the Director of Admissions. Such work completed with a grade of at least *C* in the Division of University Students, may be converted into the equivalent of high school units in the ratio of three credit hours to one unit and applied toward the entrance requirements of the college or school to which admission is sought.

#### CLASSIFICATION OF STUDENTS

##### REGULAR STUDENTS

Regular students are those who have met the entrance requirements for candidacy and are registered for certificates or degrees.

##### UNIVERSITY STUDENTS

Persons of mature age, as specified in the rules of the Division of University Students, may be admitted to that Division to pursue courses

for which they have had adequate preparation. In special instances, with the permission of the instructor, a person may register as an auditor in a class without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance. (See the announcement of the Division of University Students.)

#### EXTENSION STUDENTS

Persons unable to come to the University who wish to undertake University courses and persons who wish to take intensive courses, not a part of the regular program, may be admitted to the Division of Extension. (See the announcement of the Division of Extension.)

---

Additional information concerning curricula, courses offered, entrance requirements, or admission procedure may be obtained from the Office of the Director of Admissions.

## REGISTRATION

Before a student may be admitted to registration he must have satisfied the Office of the Director of Admissions that he is qualified for entrance to the University. (See "Admission", pages 10-18.)

A student who has previously matriculated in the University, but who has not been in attendance during the term prior to registration, should file an application for readmission in advance of registration.

Registration is for the term unless otherwise indicated on the registration paper. No registration is accepted for less than a term or one summer session.

A student may not register concurrently in The George Washington University and another institution without the permission of the dean of the college, school, or division in which he is registered in The George Washington University. Allowance of credit for work done concurrently will be at the discretion of the appropriate Committee on Admission and Advanced Standing.

### TIME AND PLACE OF REGISTRATION

Registration for the fall term will be conducted on October 1 and 2, 1943. Registration for the winter term will be conducted February 2 and 3, 1944. Registration for all colleges, schools, and divisions of the University except the Law School will be conducted in the Hall of Government, 710 Twenty-first Street NW., from 11:00 A.M. to 7:00 P.M. Registration for the Law School will be conducted in Stockton Hall, 720 Twentieth Street NW., from 11:00 A.M. to 7:00 P.M.

### LATE REGISTRATION

For registration after October 2 in the fall term, and after February 3 in the winter term, a late-registration fee of \$5 will be charged. In all courses, registration for credit closes on October 16 for the fall term, and on February 18 for the winter term.

### REGISTRATION CHANGES AND WITHDRAWALS

For regulations governing changes in registrations and withdrawals see pages 22 and 36-37.



## FEES AND FINANCIAL REGULATIONS

By authorization of the Board of Trustees, the following fees have been adopted, effective at the beginning of the summer term of 1943-44:

### UNIVERSITY FEE (see explanation below)

For each term or any part thereof.....	\$8 --
For each session of the summer term or any part thereof*.....	4 --
For auditors,‡ for each registration.....	2.00
For extension students‡.....	5.00

### TUITION FEES

For each credit hour for which the student registers (except work taken by a candidate for a Doctor's degree§).....	8.00
For the degree of Doctor of Medicine, for two terms  .....	534.00
For the degree of Doctor of Philosophy:	
For work leading to and including the Council Fellowship examination¶.....	240.00
For work leading to and including the final examinations¶.....	240.00
For the degree of Doctor of Education:	
For work leading to and including the general examination¶.....	240.00
For work leading to and including the final examinations¶.....	240.00
For the degree of Doctor of Juridical Science:	
For work leading to and including the final examinations¶.....	240.00

### ADDITIONAL COURSE FEES AND DEPOSITS

In certain courses additional fees and deposits, such as laboratory and material fees and breakage deposits, are charged as indicated in the course descriptions. These fees are charged by the term and, unless otherwise indicated, may be defrayed in three payments when the tuition is paid in this manner. Fees and deposits payable in advance are due in full at the time of registration. Breakage of apparatus is charged against the individual student, and the amount paid in excess of breakage will be credited to the student's account at the end of the course.

### GRADUATION FEES

Wherein a degree is granted.....	\$20.00
Wherein a certificate is granted.....	10.00

FEE FOR BINDING MASTER'S THESIS.....	3.00
--------------------------------------	------

\* Students registered for only those courses which extend over a single term of fifteen weeks must pay a University fee of \$8

‡ Payment of this fee entitles auditors and extension students to the reference use of the University Library facilities, upon identification by the registration card, but it does not entitle auditors or extension students to the other privileges to which payment of the preceding fees entitles resident students.

§ Payment of tuition for the thesis will entitle the candidate, during the academic year of registration, to the advice and direction of the member of the faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year may be granted without further tuition payment. If the preparation of the thesis extends beyond the second academic year, it must be registered for again, and tuition paid on the same basis as for a repeated course.

|| Registration in the School of Medicine is for a period of two terms. After the student has entered the courses of instruction, he is obligated for the full tuition for two terms. No part of the tuition will be refunded upon withdrawal or dismissal for any cause.

¶ When a limited schedule is carried which extends the time of either the preparation period or the examination period to more than one year, the proportionate part of the charge may be fixed by the Comptroller.

**FEE FOR THE PROFESSIONAL THESIS IN THE SCHOOL OF ENGINEERING....** 50.00  
An annual fee: one half, plus the University fee, payable in advance at the time of each registration.

**FEE FOR PRINTING AND FILING SUMMARY OF DOCTORAL THESIS.....** 50.00

**SPECIAL FEES**

Late-registration fee, charged each student who fails to register within the designated period.....	5.00
Service fee, charged each student for late payment of tuition (see "Payment of Fees").....	1.00
Reinstatement fee, charged each student who is reinstated after suspension for delinquency in fees.....	5.00
For special physical examination.....	2.00
For examining admission credentials in the School of Medicine.....	3.00
Student Bar Association fee, charged each student in the Law School for each term or any part thereof except the summer term.....	2.00
For examinations to qualify for advanced courses and for all special examination.....	5.00

**UNIVERSITY FEE**

Payment of the University fee covers all expenses incident to registration and, in addition, secures to each student the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the services of the Placement Office; (3) the use of University library facilities, except as otherwise designated; (4) gymnasium privileges; (5) admission to all athletic contests, unless otherwise specified; (6) subscription to the *University Hatcher*, the student newspaper; (7) admission to University debates; (8) medical attention and hospital services as described under the Department of Health Administration. These privileges, however, with the exception of the issuance of transcripts, terminate, and a student is no longer in residence, when he withdraws or is dismissed from the University.

**PAYMENT OF FEES**

All fees are payable at the Office of the Cashier, 725 Twenty-first Street NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each term are due and payable in advance at the time of registration.

In exceptional cases, subject to the approval of the Comptroller, the student may sign a contract for term charges, except for the University fee and other fees payable in advance, permitting payments as follows:

*Summer Term 1943.*—One third at the time of registration, plus the University fee and deposits; one third on July 12, and one third on August 16.

*Fall Term.*—One third at the time of registration, plus the University fee and deposits; one third on November 3; one third on December 3.

*Winter Term.*—One third at the time of registration, plus the University fee and deposits; one third on March 3; one third on April 3.

During the summer term a student who fails to meet payments when due, on July 12 and August 16, but who pays his fees between July 13 and July 16 and between August 17 and August 20, is charged a service fee of \$1. A student who fails to make these payments by July 16 and August 20 will be suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5.

During the fall and winter terms a student who fails to meet payments when due, on the third day, but who pays his fees between the fourth and tenth days, inclusive, of the month in which payment is due, is charged a service fee of \$1. A student who fails to meet payments by the tenth day of the month in which payment is due will be suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5.

A suspended student may not be reinstated for the term after two weeks from the date of suspension. Applications for reinstatement are to be made to the dean of the college, school, or division in which the student is registered.

An auditor pays a University fee of \$2 and all other fees chargeable to the student registered for credit except the late-registration fee.

#### WITHDRAWALS AND REFUNDS

Application for withdrawal from the University or for change in class schedule must be made in person or in writing to the dean of the college, school, or division in which the student is registered. Notification to an instructor is not an acceptable notice (see "Withdrawal", page 36.)

In authorized withdrawals and changes in schedules, financial adjustments will be made as follows:

*Summer Term 1943.*—Withdrawal dated on or before July 9, cancellation of the second and third payments; withdrawal dated on or before August 13, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to August 13.

*Fall Term.*—Withdrawal dated on or before November 1, cancellation of the second and third payments; withdrawal dated on or before November 30, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to November 30.

*Winter Term.*—Withdrawal dated on or before February 29, cancellation of the second and third payments; withdrawal dated on or before March 31, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to March 31.

In no case will the University fee or any part of an initial payment of



fees be refunded, and in no case will tuition be reduced or refunded because of nonattendance upon classes.

Payment applies only to the term for which a registration charge is incurred and in no case will this payment be credited to another term.

A student granted "war leave" during a term will be credited with tuition payments made prior to the granting of such leave, which credit will be applicable toward the completion of the courses for which he was registered.

Any student in chemistry who fails to check out of the laboratory on or before the date set by the instructor, unless excused by the instructor, will forfeit the balance of his deposit. A student who drops a course before the end of the term must check out of the laboratory at once.

Authorization to withdraw and certification for work done will not be given a student who has not a clear financial record.



## FELLOWSHIPS, SCHOLARSHIPS, PRIZES, LOANS

### FELLOWSHIPS

The following fellowships are available to graduate students. Applications should be submitted for consideration not later than March 1 preceding the period for which the fellowship is to be awarded.

The applicant for a University Teaching Fellowship or a Special Fellowship is expected to be a prospective candidate for the degree of Doctor of Philosophy, and to have the Master of Arts degree, or the equivalent, in the general field of his future doctoral study and research. Forms on which to make application for these fellowships may be obtained from the Chairman of the Graduate Council.

*University Teaching Fellowships.*—These are assigned for the academic year 1943-44 in the following departments of instruction: Bacteriology, Biochemistry, Botany, Chemistry, Economics, English, History, Physics, Psychology, Romance Languages, and Statistics. Each fellow receives a stipend of \$600, plus full tuition in the Graduate Council for whatever schedule of study or research his fellowship duties permit him to carry. The occupant of each of these fellowships renders a designated unit of service to the department of instruction in his major field of doctoral study, usually in classroom or laboratory assignments.

*Special Fellowships.*—A number of special fellowships are supported by endowment, and are awarded to doctoral students of unusual promise and ability. The stipend is not fixed but varies in amount with the need of the individual receiving the award. In applying for one of these fellowships it is advantageous that the student appear personally for an interview with the Chairman and such other members of the graduate Council as would be interested in the research investigations proposed. These fellowships include the following:

*Isabella King Research Fellowship.*—Of the value of \$1,200 annually, offered in the general field of biology, and intended to foster research for which the libraries and scientific establishments in Washington provide special facilities.

*Thomas Bradford Sanders Fellowships.*—Established by Miss Addie Sanders in memory of her brother, Thomas Bradford Sanders, and offered in various academic fields of study, with stipends designated by the Chairman of the Graduate Council.

### SCHOLARSHIPS

Scholarships are awarded for two terms unless otherwise specified and are credited in equal parts for each term. Each holder must carry a

full schedule of academic work (fifteen credit hours or in the professional schools the full prescribed schedule) during the period for which the scholarship is awarded. Except in the case of the Columbian Women's Scholarships, the High School Scholarships, the National League of Masonic Clubs Scholarships, the Order of the Eastern Star Scholarship, and the Trustee Scholarships, applicants must have established an academic record in courses at this institution and should apply on prescribed forms which must be filed in the Office of the Registrar not later than May 15th preceding the academic year for which the scholarship is to be awarded. Further information may be obtained from the Registrar of the University.

*Byron Andrews Scholarships.*—Three scholarships, in the amount of \$100 each, founded in 1920 by Mrs. Belle Fisk Andrews in memory of her husband, Byron Andrews, are available "for ambitious and needy students, who desire to pursue courses in English, Latin, journalism, history, literature, or political science".

*Emma K. Carr Scholarships.*—Four scholarships in the amount of \$240 each and twelve in the amount of \$100 each, founded in 1932 by Mrs. Emma K. Carr, are awarded annually to "young men (of the white race) for undergraduate or postgraduate work, considering character, capacity, and need".

*Henry Harding Carter Scholarships.*—These three scholarships, founded in 1896 by Mrs. Maria M. Carter in memory of her husband, Henry Harding Carter, are of the annual value of \$50 each and may be awarded to deserving students who are preparing for the civil-engineering profession.

*Maria M. Carter Scholarship.*—This scholarship, in the amount of \$30 to be awarded annually to a young man, was given to the University in 1871 by Mrs. Maria M. Carter.

*Isaac Davis Scholarship.*—This scholarship, in the amount of \$30 to be awarded annually, was given to the University in October 1869 by the Honorable Isaac Davis, of Massachusetts. Nominations for the scholarship may be made "by the founder or his eldest lineal descendant". In case no such nomination is made, the scholarship is to be awarded by the University.

*Charles Worthington Dorsey Memorial Scholarship.*—This scholarship, established as a memorial to Charles Worthington Dorsey, Bachelor of Laws, '81, Master of Laws, '82, is awarded upon the recommendation of the Faculty of the Law School to a needy and promising graduate of Columbian College or other division of the University, with a Bachelor of Arts or other equivalent degree, who has maintained an average of *B* as an undergraduate student and who desires to pursue the study of law as a full-time student. The scholarship covers tuition for the course leading to the first degree from the Law School, Bachelor of Laws or

Juris Doctor, provided that the holder maintains an average of *B*. The right is reserved to suspend the benefits of the scholarship for cause at any time. The scholarship is awarded ordinarily once every three years.

**Robert Farnham Scholarship.**—This scholarship, in the amount of \$30 to be awarded annually to a student in Columbian College, was given to the University in 1871 by Mrs. Robert Farnham.

**Elma Lewis Harvey Scholarship.**—This scholarship, of the annual value of \$200, was founded in 1921 by Mrs. Emma Elizabeth Harvey in memory of her daughter, and is to be awarded every four years, or as often as vacant, to a young woman student in Columbian College of the Protestant faith and of the Caucasian race who shall be selected for scholarship and moral qualifications.

**High School Scholarships.**—Two University scholarships, one for a man student, the other for a woman, are assigned for award to each of the following schools: Anacostia, Central, Coolidge, Eastern, McKinley, Roosevelt, Western, and Woodrow Wilson High Schools (District of Columbia); Bethesda-Chevy Chase High School (Maryland); Washington Lee and George Washington High Schools (Virginia). The *Amos Kendall Scholarship*, founded by the late Honorable Amos Kendall, is one of the two assigned to the Central High School. Each of the above scholarships is awarded annually, on the recommendation of a committee consisting of the Dean of the Junior College of The George Washington University, the principal of the high school concerned, and an alumnus of both the high school and the University, to a member of the graduating class who intends to enter the Junior College and to continue in Columbian College. A principal and an alternate may be recommended.

The holders of these scholarships are exempt from tuition fees, but are charged the University fee, laboratory, graduation, and other fees. The scholarships are valid for eight terms. Beginning with the summer of 1942 the University expanded its program to permit a student to accomplish, during the summer, the work of a full term. As long as this accelerated program is in force, the high school scholarships may be used during the summer which becomes a part of the regular academic year. In any case they must be used for no less than two terms during a calendar year. The principal, or, if the principal declines, the alternate, must register in either June or September following the award.

To retain any high school scholarship a student must carry a full program of study (a full program being defined as at least fifteen hours of work each term), unless otherwise determined in individual cases by the Committee on Student Loans and Scholarships upon recommendation of the dean of the college concerned. An average of *B* and a high standard of deportment must be maintained. In case the holder of the scholarship, after registering in the University, does not continue the use of it, the scholarship will not be reassigned.



**A. Morehouse Scholarship.**—This scholarship was founded by Mr. A. Morehouse, in 1861. It carries an annual stipend of \$45, which is available for an undergraduate intending to enter the Christian ministry.

**The National League of Masonic Clubs Scholarships.**—Twelve scholarships, in the amount of \$500 each, are offered for the academic year 1943-44 by the National League of Masonic Clubs. These scholarship awards, based upon competitive examinations, are available to Masons and sons of Masons affiliated with the National League of Masonic Clubs. Information in regard to the regulations governing these awards may be obtained from the Executive Secretary, Board of Trustees and Administration, Educational Foundation, National League of Masonic Clubs, P. O. Box 56, Station H, New York City.

**Newspaper Scholarships.**—Four scholarships are to be awarded each year to candidates recommended by the following newspapers: *The Washington Daily News*, *The Washington Post*, *The Evening Star*, and *The Times-Herald*. These scholarships cover tuition for four years, but do not include the University fee, laboratory fees, graduation fee, or other special fees.

**Order of the Eastern Star Scholarship.**—This scholarship in the amount of \$125 was established by the Order of the Eastern Star of the District of Columbia and is to be awarded to a woman of the Order or to a daughter of a member in good standing. The donors reserve the right to nominate the holder of this scholarship.

**David Spencer Scholarship.**—This scholarship, established in 1918 by Miss Louisa J. Spencer, is available under conditions stated in the bequest.

**Mary Lowell Stone Scholarship.**—This scholarship, founded in 1893 in memory of Mary Lowell Stone, is in the amount of \$60, to be awarded annually to a woman student of science in Columbian College.

**Charles Clinton Swisher Scholarship.** This scholarship, founded in 1941 by the late Professor Charles Clinton Swisher, is in the amount of \$240 and is awarded annually under the terms of the bequest to a student having a special interest in and aptitude for the study of medieval history.

**Trustee Scholarships.**—Five scholarships are awarded each year, upon the recommendation of regional alumni clubs, to outstanding male graduates of accredited high schools. The scholarships cover tuition costs for two terms of full time work but do not include the University fee, special fees such as laboratory charges, room, board, or other expenses. To retain the scholarship, the student must maintain a *B* average. Additional information may be obtained from the Alumni Secretary.

**William Walker Scholarship.**—This scholarship was founded in 1824 by William Walker, Esq., of Putnam County, Georgia. It carries an annual stipend of \$75, which is available for an undergraduate intending to enter the Christian ministry.

**John Withington Scholarship.**—This scholarship was founded in 1830



by the New York Baptist Theological Seminary, to be known as the John Withington Scholarship. It has an annual stipend of \$60.

*Ellen Woodhull Scholarship.*—This scholarship, founded by the late Ellen M. E. Woodhull, is in the amount of \$20, to be awarded annually to a student in Columbian College.

#### THE COLUMBIAN WOMEN SCHOLARSHIP FUNDS

The Columbian Women Scholarships, granted under any of the funds hereinafter described, are awarded by the Scholarship Committee of the Columbian Women. Applications for the Columbian Women Scholarships should be addressed to the Chairman of the Scholarship Committee of the Columbian Women, The George Washington University, Washington, D.C., not later than May 15 preceding the academic year for which the scholarship is to be awarded; or, in the case of award for the winter term, not later than January 1.

*Nellie Maynard Knapp Scholarship Fund.*—The income from this fund of \$5,000, established in 1915 by the Columbian Women in memory of a former president, Mrs. Martin A. Knapp, is available for scholarships for women.

*Founders of Columbian Women Scholarship Fund.*—The income from this fund of \$5,000, established in 1920 by the Columbian Women, is available for scholarships.

*Lillian Young Herron Scholarship Fund.*—The income from this fund of \$5,000, established by the Columbian Women in 1925 and named in 1930 in memory of a former president, is available for scholarships.

*Elizabeth V. Brown Scholarship Fund.*—This fund of \$1,200 was established in 1925 by the College Women's Club of Washington, D.C., in memory of the late Elizabeth V. Brown. The scholarship granted thereunder is available for a woman student in the School of Education.

*College Women's Scholarship Fund.*—The income from this fund of \$500, established in 1926 through the courtesy of the College Women's Club of Washington, D.C., is available for scholarship aid.

*Lewes D. and Myrtie H. Wilson Memorial Scholarship Fund.*—This fund of \$1,000 was established by Miss Elizabeth Wilson in 1926 as a memorial to her parents, Lewes D. and Myrtie H. Wilson. The income is available for a scholarship in the School of Medicine.

*Grace Ross Chamberlin Scholarship Fund.*—The income from this fund of \$2,300, established in 1932 by the Columbian Women in honor of a former president, is available for scholarship aid.

#### PRIZES

*Alpha Chi Sigma Prizes.*—Alpha Pi Chapter of Alpha Chi Sigma Fraternity offers annually the following prizes:

A "Handbook on Chemistry and Physics" is awarded to each of the

three male students who carry at least eighteen credit hours during the freshman year and attain the highest averages in freshman chemistry.

The fraternity will have engraved on a bronze plaque in Corcoran Hall the name and year of graduation of the graduating male student who has attained the highest quality-point index in courses in chemistry, exclusive of the work of the final term, provided that he has completed the requirements for a major in chemistry and has done three-fourths of this work in The George Washington University.

*Alpha Delta Pi Prize.*—Alpha Pi Chapter of Alpha Delta Pi Fraternity offers an annual prize of \$10 to the student doing the best work in third-year French.

*Alpha Kappa Psi Prize.*—Beta Mu Chapter of Alpha Kappa Psi Fraternity awards annually a scholarship medallion to the male student who has completed ninety credit hours at The George Washington University and has attained the highest average grade of the students enrolled in economics, business administration, public accounting, public finance, and foreign commerce.

*American Institute of Chemists Prize.*—The District of Columbia Chapter of the American Institute of Chemists offers an annual prize of a medal and junior membership in the American Institute of Chemists to be awarded to that graduating student, majoring in chemistry, who is judged by the Faculty of the Department of Chemistry to excel in scholarship and in the personal qualities of integrity and leadership.

*Byrne Thurtell Burns Memorial Prize.*—This prize, in the amount of \$30, is awarded to the senior majoring in chemistry who shows the greatest proficiency in organic chemistry, as evidenced by a comprehensive examination, and who possesses such qualifications of mind, character, and personality as to give promise of future achievement.

*Chi Omega Prize.*—Phi Alpha Chapter of Chi Omega Fraternity offers annually a prize of \$25 to be awarded to the woman student in the graduating class with the highest record in the following social sciences: economics, sociology, political science, and history; combined with general excellence.

*Colonial Dames Prize.*—The Society of the Colonial Dames of America, Chapter III, offers annually a medal to be awarded to the student who, having maintained a record of distinction in American history, submits the best essay upon a topic in Colonial history.

*John Henry Cowles Prizes.*—These prizes, founded in 1943 by John H. Cowles, Grand Commander of the Supreme Council of the Thirty-third Degree (Mother Council of the World) of the Ancient and Accepted Scottish Rite of Freemasonry, Southern Jurisdiction of the United States of America, are awarded annually to the two best scholars in the senior class of the School of Government. The prizes are as follows: first prize, \$40; second prize, \$20.

*George Howland Cox Prize.*—This prize, in the amount of \$25, is awarded annually to that student in European history whose essay on some assigned topic shall be deemed the best submitted.

*DeWitt Clinton Croissant Prize.*—This prize, founded by the late Professor DeWitt Clinton Croissant, consists of \$30, which is awarded annually to the undergraduate student who as a member of one of the University courses in drama or as a participant in University dramatics submits to the English Department the best essay on drama or the theatre.

*E. K. Cutter Prize.*—The E. K. Cutter Prize in English was founded by the late Marion Kendall Cutter "for excellence in the study of English". An annual prize of \$35 is awarded to the member of the graduating class whose record in English, combined with general excellence, shows most marked aptitude for and attainment in English studies.

*Daughters of the American Revolution Prize.*—This prize, founded by the Daughters of the American Revolution of the District of Columbia, consists of \$15, which is awarded annually to the student who, having maintained a record of distinction in American history, submits the best essay upon a topic in the period of the American Revolution.

*Harry Cassell Davis Prizes.*—These prizes are offered annually by Dr. Davis, who is a graduate of the University and a member of its Board of Trustees, to those students, registered for the course Principles of Effective Speaking, who, selected to take part in a speaking contest at the end of the course, are judged the best speakers. At the end of the fall term three prizes will be awarded, as follows: first prize, \$25; second prize, \$15; third prize, \$10. At the end of the winter term two prizes will be awarded, as follows: first prize \$15; second prize \$10.

*Isaac Davis Prizes.*—These prizes, founded by the Honorable Isaac Davis, of Massachusetts, in 1847, are awarded annually to such members of the senior class as shall have made the greatest progress in public speaking during their connection with the University. The prizes are as follows: first prize, \$15; second prize, \$10; third prize, \$5.

The award of these three prizes is determined by a public-speaking contest in which the participants deliver original orations. Only members of the senior classes who are candidates for the degree of Bachelor of Arts or Bachelor of Science are eligible to compete.

*William Thornwall Davis Prize.*—This prize, offered by Dr. William Thornwall Davis and consisting of a current monograph or set of monographs dealing with the field of ophthalmology, is awarded annually to the student doing the most outstanding work in ophthalmology.

*Delta Sigma Rho Prizes.*—Two cups presented by Delta Sigma Rho are engraved each year, one with the name of the fraternity and the other with the name of the sorority whose team wins the Intramural Debate. Each winning team retains the cup for the year following the



award. A third victory, not necessarily consecutive, earns for that organization permanent possession of the cup.

*Delta Zeta Prize.*—Delta Zeta Sorority offers annually a prize of \$10, to be awarded to the student maintaining the highest average in general botany.

*Ellsworth Prize.*—The Ellsworth Prize of \$25, established by the late Mr. Fritz von Briesen, is awarded to the student doing the best work in the subject of Patent Law Practice.

*Elton Prize.*—The Elton Prize, founded by the Reverend Romeo Elton, of Exeter, England, consists of \$10, awarded annually to the senior student having the highest average in the Greek language and literature.

*Joshua Evans III Prize in the Political and Social Sciences.*—This memorial prize in the amount of \$30, "established by friends because of an outstanding life", is awarded annually to that man in the graduating class of The George Washington University "who has demonstrated his signal ability in the social and political sciences and who has given promise of the interpretation of that ability in good citizenship among his fellows". The selection of the recipient will be made by the President of the University and a committee from the Faculty of the Division of the Social Sciences.

*Willie E. Fitch Prize.*—The Willie E. Fitch Prize for highest excellence in all branches of chemistry, founded in 1883 by James E. Fitch, Esq., in memory of his son, consists of \$40, which is awarded annually to a senior student for the best general examination in chemistry.

*Alice Douglas Goddard Prize.*—This prize of \$35 was founded in 1941 by Frederick Joseph Goddard of Georgetown, D.C., in memory of Alice Douglas Goddard, and is awarded annually to the upper division student making the highest average in American literature.

*Edward Carrington Goddard Prize.*—This prize, consisting of \$35, was founded in 1923 by Mary Williamson Goddard, Alice Douglas Goddard, and Frederick Joseph Goddard, of Georgetown, D.C., in memory of Edward Carrington Goddard, class of '81, and is awarded to the junior or senior student making the highest average in the French language and literature.

*James Douglas Goddard Prize.*—This prize, consisting of \$35, was founded in 1923 by Mary Williamson Goddard, Alice Douglas Goddard, and Frederick Joseph Goddard, of Georgetown, D.C., in memory of James Douglas Goddard, class of '01, and is awarded to the senior student making the highest average in pharmacy.

*Morgan Richardson Goddard Prize.*—This prize, consisting of \$35, was founded in 1923 by Mary Williamson Goddard, Alice Douglas Goddard, and Frederick Joseph Goddard, of Georgetown, D.C., in memory of Morgan Richardson Goddard, and is awarded to the junior



or senior student making the highest average in the following fields: economics, business administration, foreign commerce, and public accounting.

*The Gardiner G. Hubbard Memorial Prize in American History.*—This prize of \$40 was established by Mrs. Gertrude M. Hubbard in memory of her husband, the late Gardiner G. Hubbard, and is awarded annually to that member of the graduating class majoring in history who has maintained the highest standing in courses in American history.

*Kappa Kappa Gamma Prize.*—Kappa Kappa Gamma Sorority offers annually a prize of \$10 to the full-time freshman who achieves the best record in Botany 1 and 2.

*John Bell Larner Prize.*—This prize, established by the bequest of John Bell Larner, consists of a medal which is awarded annually to that member of the graduating class in the Law School who attains the highest average grade in the entire course for the degree of Bachelor of Laws.

*Mortar Board Prize.*—This prize, consisting of a silver cup, is awarded annually to the woman student in the sophomore class having a scholarship average of B or higher and the most outstanding record in activities.

*Omicron Delta Kappa Prize.*—Alpha Delta Circle of Omicron Delta Kappa Fraternity offers annually a plaque to be awarded to "that member of the senior class who throughout his course at The George Washington University has done the most constructive work in the furtherance and upbuilding of the University student activities".

*John Ordronaux Prizes.*—These prizes were established in 1909 by the bequest of John Ordronaux.

The amount of \$45 is awarded to the member of the graduating class in the School of Medicine who has the highest scholastic standing.

The amount of \$35 is awarded annually to the student in the Law School who has attained the highest average grade in the first-year, full-time, regular course; and \$35 to the student who has attained the highest average grade in the second year, full-time, regular course.

*Phi Eta Sigma Prize.*—The George Washington University Chapter of Phi Eta Sigma, freshman honorary scholarship society, offers each year to the beginning male student attaining the highest scholastic average in his first full term of work, a choice book selected from the field of the recipient's major interest. In addition, the winner's name will be engraved on a permanent plaque to be preserved in the Office of the Dean of the Junior College.

*Phi Sigma Kappa Prize.*—Phi Sigma Kappa Fraternity offers annually a silver cup to the winner of an oratorical contest, open to all freshmen.

*Phi Sigma Sigma Prizes.*—Kappa Chapter of Phi Sigma Sigma Fraternity offers annually the following prizes:

The amount of \$10 is awarded to the woman student with the highest average in first-year zoology.

A key, known as the Nileen Cooper Phi Sigma Sigma Award, is given to the senior woman doing the most outstanding work in psychology.

*Pi Beta Phi Prize.*—A prize of \$20 is awarded annually by the District of Columbia Alpha Chapter of Pi Beta Phi Fraternity to that woman member of the senior class who throughout her college course has done the most constructive work in the promotion of student activities among the women of the University.

*Pi Lambda Theta Prize.*—Alpha Theta Chapter of Pi Lambda Theta Fraternity offers an annual prize of \$25 to the student who produces the most meritorious Master's thesis in education.

*Ruggles Prize.*—The Ruggles Prize, founded by Professor William Ruggles in 1859, consists of \$15 awarded annually to a candidate for a baccalaureate degree for excellence in mathematics.

*Sigma Kappa Prizes.*—Zeta Chapter of Sigma Kappa Sorority offers an annual prize of \$10 to the student who passes the best examination in General Chemistry.

*Sigma Tau Prize.*—Xi Chapter of Sigma Tau Fraternity offers annually a medal to be awarded to that member of the freshman class in the School of Engineering who maintains the highest scholastic standing in the work of the entire year.

*Staughton Prize.*—The Staughton Prize, founded by the Reverend Romeo Elton, consists of \$10 awarded annually to the senior student making the best record in the Latin language and literature.

*James MacBride Sterrett, Jr., Prize.*—This prize, founded in 1911 by Professor James MacBride Sterrett in memory of his son, consists of a gold medal awarded annually to that student who obtains the highest average in Physics 6, 7, and 8.

*Charles Clinton Swisher Historical Club Prize.*—This prize, founded in 1936 by the Charles Clinton Swisher Historical Club and augmented in 1942 by the bequest of the late Professor Charles Clinton Swisher, is an annual prize of \$30 awarded to the student who submits the best essay covering some phase of medieval history.

*Theta Tau Activities Plaque.*—Gamma Beta Chapter of Theta Tau Fraternity offers annually a plaque to be awarded to that member of the senior class who has the most outstanding record in activities in the School of Engineering during the entire period of his attendance.

*Thomas F. Walsh Prize.*—This prize, founded in 1901 by Thomas F. Walsh, consists of \$30 awarded annually to that student who submits the best essay upon some topic in Irish history.

*Alexander Wilbourne Weddell Prize.*—From a fund established in 1923 by Mrs. Virginia Chase Weddell, an annual prize of \$150 is awarded to a candidate for a degree who writes the best essay on the subject of "the promotion of peace among the nations of the world". The prize essays shall become the property of the University and shall not be printed or published without the written consent of the University. The

University reserves the right to withhold the award if no essay attaining the required degree of excellence is submitted.

#### LOAN FUNDS

Loan funds are administered by the University Committee on Student Loans and Scholarships unless otherwise specified. Applications upon the required forms must be filed in the Office of the Comptroller at least ten days before the first day of registration in each term. Applications for loans to cover the second or third payments of tuition in any term must be filed on or before the first day of the month in which the fees are due. Applications for loans cannot be considered if they are received after the dates stated above. Loans will be limited to the amount required for tuition in each case. Borrowers will sign notes for the amount borrowed. The terms of repayment of interest and principal will be arranged at the time of making the loan. When a student withdraws from the University, his loan automatically becomes due. No candidate will be approved for graduation if he is delinquent in a loan obligation incurred for educational purposes.

*University Student Loan Fund.*—The Trustees of The George Washington University have established a loan fund amounting to \$10,000.

*Daughters of the American Revolution Loan Fund.*—The District of Columbia Chapters of the Daughters of the American Revolution have established an endowment fund of \$5,000, the income of which is available for interest bearing loans to descendants of patriots of the American Revolution. At present the loan fund amounts to \$1,483.13.

*Henry Strong Educational Foundation.*—The Henry Strong Educational Foundation, established at Chicago under the will of General Henry Strong, makes available a fund for loans to both men and women students under the age of twenty-five years, preferably in the upper classes, who possess not only zeal for leadership but also character and those traits tending to leadership, to aid them "in obtaining a practical, literary, scientific, mechanical, or business education".

*Henry Strong-William A. Maury Loan Fund.*—This fund, also allocated from the funds of the Henry Strong Educational Foundation, is to be loaned to students under the age of twenty-five years in the George Washington University Law School.

*Knights Templar Educational Loan Fund.*—This fund, contributed and administered by the Grand Commandery of Knights Templar of the District of Columbia, is available for loans to students, preferably in the upper classes, who are residents of the District of Columbia. The amount loaned to a student is limited to \$200, and the terms of repayment are specially arranged in each instance by the Loan Committee of the Knights Templar.



## REGULATIONS

A student enrolled in the University is required to conform to the University regulations and to comply with the rules and regulations of the college, school, or division in which he is registered.

If a student knowingly makes a false statement or conceals material information on an application for admission, registration card, or any other University document, his registration may be canceled and he will be ineligible (except by special action of the Faculty) for subsequent registration in any unit of the University.

### ATTENDANCE

A student is not permitted to attend classes until registration has been completed and fees due have been paid. Regular attendance is required. For undue absence in any course, a student may be dropped from the course. Tuition will not be refunded or reduced because of non attendance.

A student who has been suspended, either for delinquency in payment of fees or for any other reason, is not permitted to attend classes during the period of suspension.

For further regulations regarding attendance, consult the announcements of the several colleges and schools.

### CONTINUOUS REGISTRATION

A student who withdraws or is suspended, or is otherwise absent from the University for one term or more, may re-enter and continue his work only under the rules and regulations in force at the time of his return. With the approval of the dean of the college or school concerned, a student may be granted leave of absence; such student should, however, remain technically in residence by paying the usual University fee for each term he is absent.

For the purpose of this regulation, the summer sessions will not be considered a term.

### SCHOLARSHIP REQUIREMENTS

A student who fails to maintain the scholarship requirements of the college, school, or division in which he is registered may be dismissed from the University.

### GRADES

Grades are not given out by instructors but are mailed to the student through the Office of the Registrar at the close of each term. Upon



request, a copy of the student's grades will be forwarded to his parent or guardian.

The following grading system is used: *A* (90-100 per cent), excellent; *B* (80-89 per cent), good; *C* (70-79 per cent), average; *D* (60-69 per cent), passing; *E*, conditioned, not passing; *F* (below 60 per cent), failing; *Inc.*, incomplete; *W*, withdrawn. *W* is followed by a letter grade indicating the quality of work the student was doing at the time of withdrawal. A course failed must be repeated with a passing grade in order to be credited. No student may repeat for credit a course in which he has received a grade above *E*, without the permission of the faculty of the college, school, or division in which he is registered. A condition may be removed within one year on terms specified by the instructor, but in no case will a final grade above *D* be given unless the course is repeated in class. A grade of "incomplete" cannot be altered after the lapse of one calendar year except by action of the Faculty.

For graduate work, grades are indicated as "satisfactory", "unsatisfactory", or "incomplete".

For the grading systems of the Law School and the School of Medicine see the explanations in the announcements of those schools.

#### QUALITY-POINT INDEX

Quality-points are computed from grades as follows: *A*, four points; *B*, three points; *C*, two points; *D*, one point; *E*, and *F*, no points, for each credit hour for which the student has registered.

Scholarship is computed in terms of the quality-point index, obtained by dividing the number of quality-points by the number of credit hours for which the student has registered, both based on the complete collegiate record. Courses marked *W* or *Inc.* are not considered in determining the index.

#### EXAMINATIONS

Examinations are scheduled in all courses at the end of each term or at the completion of the course.

A student guilty of dishonesty in examinations may be deprived of credit for the courses in which dishonesty occurs and may be dismissed from the University.

For further regulations regarding examinations, consult the announcements of the several colleges, schools, and divisions.

#### WITHDRAWAL

A student who is obliged to withdraw from the University or from a course must immediately notify the dean of the college, school, or division.

in which he is registered. Permission to withdraw from the University cannot be obtained by a student who has not a clear financial record. (See "Fees and Financial Regulations", pages 20-23.)

Withdrawal within the last month of a term or within the last two weeks of a summer session will be approved only in exceptional cases. (See "Withdrawals and Refunds", page 22.)

*The grade of F (failing) will be given in a course dropped without the approval of the dean.*

*All charges for courses dropped without the approval of the dean must be met by the student. Reporting the dropping of a course to an instructor does not effect its discontinuance.*

#### CHANGES IN PROGRAM OF STUDIES

A student may not change or drop (see "Withdrawals", above) courses or change his status to that of auditor except with the approval of the dean of the college, school, or division in which he is registered, upon presentation of adequate reasons for such changes.

Change from one section to another of the same course or from one major subject to another within the same college or school may be made with the approval of the dean. All requirements specified in the course of study to which the change is made must be satisfied before graduation.

Transfer from one college, school, or division to another may be made only with the approval of the deans concerned. Application for such change should be made on the proper form, obtainable in the Office of the Director of Admissions, where it should be filed.

#### CREDIT

Credit toward a degree is given only after regular registration for and satisfactory completion of the required work of classes in the University, or upon the granting of advanced standing in accordance with the regulations of the several colleges, schools, and divisions.

On request the Registrar will issue to the student a balance sheet showing the amount of work completed and the amount necessary to complete the requirements for a degree.

#### TRANSCRIPTS OF RECORD

Official transcripts of student records will be forwarded on request to other institutions. Unofficial copies of records will be issued to the student on request. No charge is made for the first three transcripts; a fee of one dollar is charged for each one thereafter. No certificate of work done will be issued for a student who does not have a clear financial record.

## SUMMER SCHOOL CREDIT

A student who plans to attend summer school sessions at another institution with the intention of having credits so obtained apply toward graduation from this University must first secure the written approval of the dean of his college or school. In no event will such credits be recognized to an amount in excess of that which might be earned in a similar period in this institution.

## PHYSICAL EDUCATION REQUIREMENTS

Students in the Junior College and freshmen and sophomores in the School of Engineering are required to take Physical Education 1-2 and 11-12 unless they are registered for less than three courses, or unless regular employment during the day makes it necessary to take all classes during the late afternoon hours.

Any other exemptions will be granted only upon written application which has been recommended by the physical education department concerned and approved by the dean of the college or school in which the student is registered.

A student entering the University with advanced standing is not exempt from the physical education requirements unless he has satisfactorily met the requirements elsewhere. Courses in military training are not accepted in satisfaction of these requirements.

The required medical and physical examinations, as specified by the departments of physical education, will be arranged at the time of registration.

## GRADUATION REQUIREMENTS

To be recommended for graduation a student must have met the admission requirements of the college or school, in which he is registered, completed satisfactorily the scholarship, curriculum, residence, and other requirements for the certificate or degree for which he is registered, and be free from all indebtedness to the University.

*Application for Graduation.*—Application for a degree or a Junior Certificate should be filed in the Office of the Registrar at the time of registration for the first term of the senior or final year and may not be filed later than the date specified in the University calendar.

*Scholarship.*—In all undergraduate divisions of the University the scholarship requirement for graduation is a quality-point index of at least 2.00.

The graduate student must meet the scholarship requirements for the particular degree for which he is registered.

*Curriculum.*—Curriculum requirements for each certificate and degree are stated under the college or school offering work in preparation for the certificate or degree.

*Residence.*—In all undergraduate divisions of the University a min-



imum of one year, or thirty credit hours, must be completed in residence. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than thirty weeks. Unless special permission is granted by the dean of the college or school concerned to pursue work elsewhere, the work of the senior or final year must be completed in residence.

The graduate student must meet the residence requirements for the particular degree for which he is registered.

*Attendance and Conduct.*—The University reserves the right to refuse to confer a degree or a certificate upon a candidate whose attendance or conduct has been unsatisfactory.

*Thesis.*—A thesis submitted in partial satisfaction of requirements for the Master's degrees, the professional degrees in engineering, the degree of Doctor of Education, or the degree of Doctor of Philosophy must be presented in its final form to the dean of the college or school concerned not later than the date specified in the University calendar. Three\* copies of each thesis are required, one typewritten original and two legible and complete carbon copies. Detailed instructions for the styling of all theses should be obtained from the appropriate Dean.

Accepted theses, with accompanying drawings, are the property of the University and will be deposited in the University Library, where the duplicate copies will be bound and made available for circulation. Permission to publish or adapt material in the thesis must be secured from the appropriate faculty.

*Presence at Graduation.*—A candidate is required to be present at the graduation exercises unless written application for graduation in absentia is approved by the dean of his college or school.

#### HONORS

*With Distinction.*—In all undergraduate divisions of the University the degree may be conferred "with distinction", at the discretion of the Faculty, if a student attains a quality-point index of 3.50 or higher on all work taken at this institution except that taken during the term immediately preceding the granting of the degree. To be eligible for this honor a student must have completed at this institution at least one half of the work required for the degree.

*Special Honors.*—Special honors may be awarded by the Faculty to any member of the graduating class for outstanding achievement in the student's major field of work on recommendation of the major department, under the following regulations:

1. The student must have his candidacy for special honors approved by the faculty member representing the major department not later than the beginning of the senior year.

\* In the School of Education, four copies.



2. The student must meet such other conditions as the major department may set at the time his candidacy is approved.

3. No student will be awarded special honors unless he has a quality point index of at least 3.00 on all work taken at this institution except that taken during the term immediately preceding the granting of the degree. To be eligible for this honor a student must have completed at this institution at least one half of the work required for the degree.

### THE LIBRARY

A student registered in the University is entitled to the reference use of the University Library. The Student Activities Book or the Registration Card, issued upon payment of the University fee, must be presented as identification.

Library books, with the exception of those in the Law and Medical collections, may be drawn for home use for a period of two weeks. Any book which does circulate is subject to recall by the Librarian at any time. Reserve books and periodicals for collateral reading must be used in the reading rooms when the Library is open. With special permission they may be drawn for overnight use when the Library closes. A fine of twenty-five cents will be charged for the first hour or fraction of an hour and five cents for each hour or fraction thereafter that a reserve book is overdue. Grades of a student will be withheld until his library record is clear.

### HOURS

The University Library is open from 8:30 A.M. to 10:30 P.M. each class day (Saturday, 8:30 A.M. to 6:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday.

The Law Library, in Stockton Hall, 720 Twentieth Street, is open from 9:00 A.M. to 11:00 P.M. each class day (Saturday, 9:00 A.M. to 6:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday.

The Medical Library, at 1335 H Street, is open from 8:30 A.M. to 9:00 P.M. each class day (Saturday, 8:30 A.M. to 4:00 P.M.).

### RIGHT TO DISMISS STUDENTS

The right is reserved by the University to dismiss or exclude any student from the University, or from any class or classes, whenever, in the interest of the student or the University, the University Administration deems it advisable to do so.

### RIGHT TO CHANGE RULES

The University and its various colleges, schools, and divisions reserve the right to modify or change requirements, rules, and fees. Such regulations shall go into force whenever the proper authorities may determine.

## STUDENT LIFE

### RELIGIOUS LIFE

The University recognizes the contribution that religion can make to the education of its students by encouraging them to participate in denominational clubs of their own choice. National Catholic, Hebrew, and Protestant bodies sponsor these religious organizations, which act as links between the University and the local churches. The Director of the University Chapel and the advisers to the various denominational organizations are available throughout the year for consultation on personal problems.

### UNIVERSITY CHAPEL

The University Chapel is maintained as a non-sectarian expression of the faith of the University in the contribution that religion can make to the education of its students. Twenty-minute services are held Friday of each week at 12:10 P.M. in the West Room of Columbian House. Lenten Vesper Services are conducted each Wednesday during Lent at 8:00 P.M. in the Upper Room of Columbian House. Representative clergymen of Washington are guest speakers at these non-denominational services.

### HEALTH ADMINISTRATION

The University maintains a staff of medical officers and a hospital.

The University Physician for Women maintains an office in the University.

The payment of the University fee entitles the student to certain health services described under the Department of Health Administration.

### LIVING ACCOMMODATIONS

Application for room reservations should be made well in advance. Forms for application, together with detailed information may be obtained from the Director of Personnel Guidance. The prices stated below are subject to change without notice.

*Women Students.*—Women students under twenty-one years of age who carry twelve or more credit hours of academic work must have their residences approved by the Director of Personnel Guidance before their registrations can be completed.

The Hattie M. Strong Residence Hall: single rooms with breakfast and dinner are \$52 a month; double rooms with the same service are \$45.50 a month a person.

Staughton Residence Hall: single rooms are \$25 a month; double rooms are \$18 a month a person.

*Men Students.*—Limited dormitory facilities are provided for men. Single rooms with breakfast and dinner are \$52 a month. The men's fraternities have houses which provide living accommodations for their members.

#### PLACEMENT OFFICE

The Placement Office is maintained to assist graduates and students in finding positions for which their college work has prepared them, and to cooperate with employers who wish to fill vacancies. Enrollment is open to alumni members and students of the University without charge for placement.

#### STUDENT EMPLOYMENT

An employment service is operated to assist the self-supporting student in finding employment.

The prospective student who expects to earn any part of his expenses and who does not have a definite appointment to a position before coming to Washington should have the means of support for at least one term.

Many out-of-town students secure positions in the departments of the Government in Washington by taking the United States Civil Service examinations in their home states. The hours of employment permit them to pursue a college course in the late afternoon.

#### STUDENT ACTIVITIES

Control and direction of all student activities are vested in the committees on Extracurricular Activities and Student Relationships. For a list of student activities and rulings governing them see the special printed regulations of the University.

#### RECOGNITION OF STUDENT ORGANIZATIONS

No student club or society (except social fraternities, sororities, scholastic honor societies, religious or professional clubs or societies) organized as a branch or affiliate of a non-George Washington University organization will be recognized by the Committee on Student Life.

#### PROPERTY RESPONSIBILITY

The University is not responsible for the loss, in any University building, of personal property belonging to a student.

---

For further information, catalogues, and application blanks, address the Director of Admissions.

THE COLLEGES, SCHOOLS, AND DIVISIONS





## THE JUNIOR COLLEGE

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
William Crane Johnstone, Jr., Ph.D., *Dean of the Junior College*  
Donnell Brooks Young, Ph.D., *Assistant Dean in the Junior College*  
Katharine Rogers Adams, Ph.D., *Assistant Dean in the Junior College*  
Alan Thomas Deibert, A.M., *Assistant Dean in the Junior College*

### STAFF OF INSTRUCTION

Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
\*Henry Grattan Doyle, A.M., *Professor of Romance Languages*  
Robert Fiske Griggs, Ph.D., *Professor of Botany*  
Norris Ingersoll Crandall, M.Arch., *Professor of Art*  
Edward Henry Schrt, Ph.D., *Professor of German*  
Walter Lynn Cheney, Ph.D., *Professor of Physics*  
Willard Hayes Yeager, A.M., *Deputy Professor of Public Speaking*  
Elmer Louis Kayser, Ph.D., *Professor of European History*  
\*William Paul Briggs, M.S., *Professor of Pharmacy*  
Donnell Brooks Young, Ph.D., *Professor of Zoology*  
Warren Reed West, Ph.D., *Professor of Political Science*  
Lowell Ragatz, Ph.D., *Professor of European History*  
Francis Edgar Johnston, Ph.D., *Professor of Mathematics*  
\*Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*  
William Crane Johnstone, Jr., Ph.D., *Professor of Political Science*  
Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
Ralph Dale Kennedy, Ph.D., *Professor of Accounting and Business Administration*  
Arthur Edward Burns, Ph.D., *Adjunct Professor of Economics*  
Alan Thomas Deibert, A.M., *Associate Professor of Romance Languages*  
Florence Marie Mears, Ph.D., *Associate Professor of Mathematics*  
Paul William Bowman, Ph.D., *Associate Professor of Biology*  
\*Raymond John Seeger, Ph.D., *Associate Professor of Physics*  
Lawson Edwin Yocum, Ph.D., *Associate Professor of Botany*  
\*Wood Gray, Ph.D., *Associate Professor of American History*  
Audley Lawrence Smith, Ph.D., *Associate Professor of English*  
Thelma Hunt, Ph.D., M.D., *Associate Professor of Psychology*  
\*Harold Friend Harding, Ph.D., *Associate Professor of Public Speaking*  
Ira Bowers Hansen, Ph.D., *Associate Professor of Zoology*  
\*John Withrow Brewer, Ph.D., *Associate Professor of International Law*

\* On war leave 1943-44.

Carl Douglas Wells, B.D., Ph.D., *Associate Professor of Sociology*

\*John Francis Latimer, Ph.D., *Associate Professor of Classical Languages*

\*Louis Clark Keating, Ph.D., *Associate Professor of Romance Languages*

William Henry Myers, A.M., *Associate Professor of Physical Education for Men*

Samuel Nathaniel Wrenn, Ph.D., *Associate Professor of Chemistry*

\*Charles Rudolph Naeser, Ph.D., *Associate Professor of Chemistry*

\*Howard Maxwell Merriman, Ph.D., *Associate Professor of American Diplomatic History*

Ernest Sewall Shepard, A.M., *Associate Professor of English*

DeWitt Clinton Knowles, Jr., M.S., *Associate Professor of Chemistry*

\*George Winchester Stone, Jr., Ph.D., *Associate Professor of English*

Helen Bennett Lawrence, A.M., *Associate Professor of Physical Education for Women*

Donald Stevenson Watson, Ph.D., *Associate Professor of Economics*

Maurice Hart Van Horn, Ph.D., *Associate Professor of Chemistry*

Irene Cornwell, Ph.D., *Assistant Professor of French*

\*Henry Goddard Roberts, A.M., *Assistant Professor of Public Speaking*

Kathryn Mildred Towne, A.M., *Assistant Professor of Home Economics*

John Porter Foley, Jr., Ph.D., *Assistant Professor of Psychology*

\*Winfield DeWitt Bennett, A.M., LL.B., *Assistant Professor of Public Speaking*

Gretchen Louisa Rogers, Ph.D., *Assistant Professor of German*

\*Jenny Emsley Turnbull, A.M., *Assistant Professor of Physical Education for Women*

Antonio Alonso, A.M., *Assistant Professor of Spanish*

Charles William Cole, Ph.D., *Assistant Professor of English*

Wolfram Karl Legner, Ph.D., *Assistant Professor of German*

Dorothy Helene Veon, A.M., *Assistant Professor of Secretarial Studies*

Florence Everett Hooper, Ph.D., *Assistant Professor of Chemistry*

Edith Elizabeth Mortensen, A.M., *Assistant Professor of Zoology*

Elizabeth Burtner, A.M., *Assistant Professor of Physical Education for Women*

Maurice Harold Irvine, Ph.D., *Assistant Professor of English*

Peyton Armstrong Kerr, Ph.D., *Lecturer in Economics*

Albert Santee Kerr, A.M., *Instructor in English*

Averett Howard, A.M., *Instructor in English*

Georgette Dupuy Caskie, L.-ès-L., *Instructor in Romance Languages*

Martin Steele Day, A.B., *Instructor in English*

Ruth Hinkle Brunner, B.S., *Instructor in Physical Education for Women*

Verna Finger Torgerson, M.S., *Instructor in Speech*

John Martin Yoklavich, A.M., *Instructor in English*

\* On war leave 1943-44.

Isaac Feldman, B.S., *Instructor in Chemistry*

Raul d'Eça, Ph.D., *Associate in Portuguese*

Helen Taylor, A.M., *Associate in Physical Education for Women*

COMMITTEES \*

THE DEAN'S COUNCIL†

1944

Samuel Nathaniel Wrenn

Charles William Cole

1945

Thelma Hunt

Ira Bowers Hansen

1946

Merle Irving Protzman

Ernest Sewell Shepard

COMMITTEE ON ADMISSION AND ADVANCED STANDING

Florence Marie Mears, *Chairman*

Maurice Hart Van Horn

Charles William Cole

Gretchen Louisa Rogers

Maurice Harold Irvine

COMMITTEE ON SCHOLARSHIP

Samuel Nathaniel Wrenn *Chairman*

Katharine Rogers Adams

Lawson Edwin Yocum

Donnell Brooks Young

Alan Thomas Deibert

JUNIOR COLLEGE ADVISORY STAFF

William Crane Johnstone, Jr., *Dean of the Junior College, Chairman*

Donnell Brooks Young

Alan Thomas Deibert

Katharine Rogers Adams

ADVISERS FOR BACHELOR OF ARTS AND BACHELOR OF SCIENCE CURRICULA

Antonio Alonso, Paul William Bowman, Walter Lynn Cheney, Charles William Cole, John Porter Foley, Jr., Maurice Harold Irvine, Francis Edgar Johnston, DeWitt Clinton Knowles, Edith Elizabeth Mortensen, Gretchen Louisa Rogers, Verna Finger Torgerson, Maurice Hart Van Horn, Lawson Edwin Yocum.

ADVISERS FOR PREPROFESSIONAL CURRICULA

Burnice Herman Jarman (Education), William Henry Myers (Physical Education for Men), Helen Bennett Lawrence (Physical Education for Women)

\* The President of the University and the Dean of the Junior College are members ex officio of all committees.  
† Elected by the Faculty.



for Women), Donnell Brooks Young (Medicine), Kathryn Mildred Towne (Home Economics), Saul Chesterfield Oppenheim (Law).

## GENERAL INFORMATION

### INTRODUCTORY

The Junior College, which comprises the first two years of the standard four-year college program in the liberal arts and sciences, was established in 1930 as a part of the academic reorganization of the University. Prior to 1930, the four-year program had been administered by *Columbian College since its organization in 1821.*

The Junior College curricula continue the studies of a general cultural nature begun in the secondary schools, and lay a foundation for the more specialized work which is to follow. Emphasis is accordingly laid (1) upon the social, cultural, biological, and physical background of civilization (history, political science, physical and biological sciences, literature, etc.) and (2) upon the discipline necessary to the effective prosecution of more advanced work (English rhetoric and composition, foreign languages, mathematics, etc.).

The Junior College also provides the preprofessional work required for admission to the schools of Law, Pharmacy, Education, and Government, and the first two years of the preprofessional work required by the School of Medicine.

In addition it provides two-year curricula in vocational training, leading to the Junior Certificate.

### ADVISORY SYSTEM

In order that students may have opportunities for assistance in planning their courses and also for obtaining personal, educational, and vocational advice in every phase of their academic work during the first two years, a number of members of the Faculty serve as advisers to Junior College students.

Members of the Faculty, selected for their knowledge of Junior College requirements and student programs, advise both incoming freshmen and old students in making up their programs of study for each term. A separate staff of experienced advisers under the chairmanship of the Dean assists those students who find it difficult to make adjustments to college life because of scholastic or other reasons. Students who are "warned" or who are on probation may be required to consult these advisers at regular intervals. Students are encouraged to consult any members of the Advisory Staff or their instructors about college problems at any time.

Copies of notices of "warning" or probation will be sent to the parents or guardians of students on request, and the Dean and members of the

Advisory Staff are always available for consultation with parents or guardians concerning student problems.

#### REGULATIONS

*Students in the Junior College are subject to, and are expected to familiarize themselves with, the regulations regarding ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 10-23, and the University regulations stated on pages 35-40.*

#### SCHOLASTIC-APTITUDE TESTS

Students admitted to the Junior College may be required to take the scholastic-aptitude tests of the University.

#### ENGLISH PLACEMENT EXAMINATIONS

Special placement examinations, required of all entering freshmen, will be conducted by the English Department. These examinations will test the student's proficiency in spelling, grammar, punctuation, and sentence structure; his vocabulary; and, through an impromptu theme, his ability to present his ideas in logical sequence with clarity and effectiveness. On the basis of these tests students will be classified as follows: (1) especially superior students who, by the unanimous decision of the examiners, are regarded as possessing the equivalent of English 1-2 and who may be relieved of the curriculum requirements of the course; (2) all other students, who will be required to take English 1-2.

#### FIRST- AND SECOND-GROUP COURSES

A Junior College student may not take second-group courses (courses numbered 101-200) without the written permission of the instructor and of the Dean of the Junior College. A student will not be permitted to postpone a first-group course, required under the curriculum for which he is registered, in order to take a second-group course for elective credit. The principle that first-group courses must be taken in the Junior College years, and advanced courses in Columbian College and the professional schools, will be rigidly adhered to in approving student programs. No student on probation is permitted to take second-group courses except by the express permission of the scholarship committee.

#### AMOUNT OF WORK

Fifteen or sixteen credit hours, not including required physical education, constitute normal work. A student not on probation may be permitted by the Dean to take seventeen credit hours.

A student having a quality-point index of 3.50 may, with the permission

of the Dean, take eighteen or nineteen credit hours. No student may take more than nineteen credit hours, except with the permission of the **Committee on Scholarship**.

For an employed student working more than twenty-four hours a week, nine credit hours, not including required physical education, constitute normal work. An employed student not on probation may be permitted by the Dean to take ten credit hours. An employed student having a quality-point index of 3.50 may be permitted by the Dean to take twelve or thirteen credit hours.

#### ATTENDANCE

The student is held responsible to the instructor in charge of the course for which he is registered for all the work of the course, and all absences must be excused before provision will be made for him to make up the work missed.

With the exceptions noted below, occasional absences, not to exceed in number for each term the credit hours for the term, will be automatically excused. (If a course has distinct divisions such as lectures, laboratories, recitations, etc., these excuses apply pro rata to such separate divisions.) In applying this rule absences immediately preceding or following holiday periods are to be counted double.

Such automatic excuses are intended to cover the occasional minor exigencies and not to constitute an indiscriminate privilege. A student on probation is allowed no automatic excuses.

Excuses for absences from two or more consecutive class periods, and for absences from examinations which have been announced in advance, can be obtained only by making written application to the Dean of the Junior College. All other absences may be excused by the instructor in charge.

A student whose absences from any class, whether excused or unexcused, are in excess of one fourth of the total number of class periods will receive the grade of *F* for the course, except by special ruling of the Dean on recommendation of the instructor in the course.

#### CLASSIFICATION OF STUDENTS

A student who has satisfactorily completed at least thirty-two credit hours of work, including eighteen credit hours in his curriculum requirements, is classed as a *sophomore*.

#### THE JUNIOR CERTIFICATE

Upon the satisfactory completion of the requirements of the Junior College, a Junior Certificate is awarded.



## REQUIREMENTS FOR THE CERTIFICATE

### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 35 and 36.

In order to receive a Junior Certificate a student must have a quality-point index of at least 2.00.

**Honor Roll.**—The name of every student who has a quality-point index of 3.50 or higher will be placed on the honor roll and published. No consideration is given to those who have completed a total of less than fifteen credit hours. A place on the honor roll does not necessarily mean that the student will receive honors upon graduation.

**Probation.**—A student must maintain a quality-point index of at least 2.00, or be placed on probation. The case of each student who has a quality-point index between 1.50 and 2.00, however, will be considered by the Committee on Scholarship, which may retain or remove the probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Committee.

**Suspension.**—A student who has a quality-point index below 1.50 will be suspended. The case of each student who has a quality-point index between 1.35 and 1.50, however, will be considered by the Committee on Scholarship, which may retain him on probation or suspend him.

A student who falls under probation for the third term, whether successive or after an interval, will be suspended.

For the purpose of these rules, the summer sessions are considered a term.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence to the Committee on Admission and Advanced Standing that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

The foregoing scholarship rules are applied to a student with a limited schedule only when he has undertaken a minimum of fifteen credit hours.

**Warnings.**—At stated intervals during the academic year instructors file in the Office of the Registrar the names of those students who are doing work of D grade or lower. A "warning" will then be transmitted to the student concerned and a copy forwarded to his adviser. A warning constitutes notice to the student that he must consult his adviser within two weeks after receipt of the warning. Upon request a parent or guardian may receive a copy of a warning notice sent to a student. "Warning periods" are established as follows: fall term—November 1 to 15; winter term—March 15 to 30; summer term—each session, third to fourth week.



## CURRICULUM REQUIREMENTS

The satisfactory completion of sixty credit hours of college work, exclusive of physical education, is required as outlined in one of the Junior College curricula described below and in the chart facing pages 56 and 57.

Not more than twelve credit hours of professional courses may be included in the one hundred and twenty credit hours required for the Bachelor's degrees in Columbian College. Junior College students electing professional courses under this rule must obtain the approval of the Dean of the Junior College.

*Curricula for Admission to Columbian College and the Professional Schools.*—Each of the following curricula comprises the first two years of a standard four-year college course and prepares the student for upper division work. Requirements for graduation from the Junior College may not be the same as the requirements for admission to Columbian College or a professional school. Therefore, the student should consult the specific admission requirements of the college or school for which he is preparing.

The first two years of the premedical college work are undertaken in the Junior College in accordance with either curriculum A-I\* or A-II\*. Each premedical program must be approved by the premedical adviser.

Curricula for admission to:

1. Columbian College:

A-I\*—Prepares for the Bachelor of Arts curriculum in Columbian College.

A-II\*—Prepares for the Bachelor of Science curriculum in Columbian College.

2. The Law School:

A-I\*, E\*, or the equivalent—Prepares for the Bachelor of Laws curriculum in the Law School.

3. School of Pharmacy:

C\*—Prepares for the Bachelor of Science curriculum in the School of Pharmacy.

4. School of Education:

D-I (Same as A-I\*)—Prepares for the Bachelor of Arts in Education curriculum in the School of Education.

D-II\*—Prepares for the Bachelor of Science in Home Economics curriculum in the School of Education.

D-III\*—Prepares for the Bachelor of Science in Physical Education for Men curriculum in the School of Education.

D-IV\*—Prepares for the Bachelor of Science in Physical Education for Women curriculum in the School of Education.

\* See the chart facing pages 56 and 57.

## 5. School of Government:

E\*—Prepares for the Bachelor of Arts in Government curricula in the School of Government.

*Vocational Curricula.*—In addition to the above curricula, all of which prepare for admission to upper division colleges and schools, the Junior College offers the following two-year terminal courses.†

## F—Secretarial Studies Curriculum\*:

FIRST YEAR	Credit Hours	SECOND YEAR	Credit Hours
English 1 and 2.....	6	Economics 1-2 .....	6
Physical Education		Physical Education	6
Secretarial Studies 1 and 2.....	6	Secretarial Studies 15-16.....	6
Secretarial Studies 11 and 12.....	10	Secretarial Studies 32.....	3
Secretarial Studies 21 and 22.....	4	Secretarial Studies 51-52.....	6
Secretarial Studies 41 and 42.....	6	§ Secretarial Studies 65.....	3
		Electives.....	6
Total.....	32	(To be selected from Business Administration 101-2; History 30-4; Philosophy 1-2; Political Science 9-1; Psychology 1-2; Speech 1-2; Statistics 1-2.)	
		Total.....	30

## G—Accounting Curriculum:

The required work may be completed in two years on a full-time basis or in three years on a part-time basis, with the approval of the adviser.

REQUIRED COURSES	Credit Hours
Business Administration 51-52..	6
Business Administration 101-2..	6
Business Administration 115....	3
Business Administration 145....	3
Business Administration 151-52..	6
Business Administration 155....	3
Business Administration 165....	3
Business Administration 168....	3
Economics 1-2.....	6
Economics 121.....	3
English 1 and 2.....	6
Political Science 127.....	3
Political Science 128.....	3
Electives.....	6
(To be selected with the approval of the adviser.)	
Total.....	60

\* See the chart facing page 57.

† The Junior College curriculum in Secretarial Studies comprises the first two years of a four-year curriculum leading to the degree of Bachelor of Science in Secretarial Administration (see special bulletin).

§ Business Administration 51-52 must be substituted for Secretarial Studies 65 by students who are candidates for the degree of Bachelor of Science in Secretarial Administration.

### Physical Education

Physical education is required of all students in the freshman and sophomore years. (See "Physical Education Requirements", page 38.)

### Foreign-Language Requirements

The curriculum requirement in foreign languages is articulated with the admission requirements. For the Junior Certificate a student must have completed satisfactorily the equivalent of two years of college work in a single foreign language.

A student offering for admission four acceptable high school units of a single foreign language, or the equivalent, is not required to take any foreign language. If he offers three units, he must complete the second term of the second-year college course in the same language. If he offers two units, he must complete the entire second-year college course in the same language (except in the Pre-Pharmacy Curriculum, where he may substitute another language or elective). If he offers one unit, he must complete the second term of the first-year college course and the entire second-year course in the same language. A student who offers irregular or inadequate preparatory work in a given language, or who has permitted a year or more to elapse since the completion of the second high school unit, must consult the executive officer of the department in question for assignment to proper courses. On written recommendation of the proper executive officer, and with the approval of the Dean of the Junior College, a student may repeat for credit a language course taken in high school.

In some instances foreign languages are required or recommended as a preparation for advanced work in Columbian College and the professional schools. The student should consult his adviser as to these requirements, so that appropriate foreign languages may be included, when necessary, in his Junior College program.

### Examinations for Waiving Curriculum Requirements\*

A student desiring to omit a required course may take such examination as the department prescribes, and, on passing satisfactorily, he may be relieved of the curriculum requirements in that subject and may qualify for registration in an advanced course. Passing of this examination shall not entitle the student to any hours of credit toward the degree. A student desiring to take such examinations should make the request of the Dean.

\* This provision does not apply to the premedical student, all of whose required premedical work must be taken in a recognized college of arts and sciences.

A fee of \$5 for each examination must be paid at the Office of the Comptroller and the receipt exhibited at the door of room 105, Building D, on September 22, at 2:00 P.M. for the fall term, and on February 1, at 2:00 P.M. for the winter term. Two hours are allowed for each examination. Should a student wish to take more than one examination, arrangements will be made accordingly.

#### Honors

Honorable mention with the Junior Certificate may be granted to the student who has a quality-point index of 3.50 or higher.





COURSES	BAS
English.....	First two years Sophomore year Philosophy
Foreign Languages.....	French, German Language re
Social Studies.....	History 1-2 Sociology 2 year )
Sciences.....	Biology 1-2, Physics 3, 4 (May
Electives.....	To be selected
Physical Education (3 or 4)...	See page 35
Total.....	

<sup>1</sup> Not more than four term courses may be  
more than eight term courses may be taken  
listed above

<sup>2</sup> For the degree of Bachelor of Science, the  
major departments as to proper prerequisite and

## C CURRICULA IN PREPARATION FOR ADMISSION TO COLLEGE AND THE LAW SCHOOL

A-I. ARTS AND LETTERS <sup>1</sup>	A-II. SCIENCES: BIOLOGY, GEOLOGY, MATHEMATICS
English 1, 2..... 6 or: English 51-52, 71-72, 91-92, Art 11-12, or 1-2..... 6	Freshman year: English 1, 2..... Sophomore year: English 51-52, Social Studies. (See below)....
French, Latin, Spanish, or elective (see page 54 for foreign requirement) ..... 12	French or German, or non-science elective. (See below.) NOTE: A reading knowledge of French or German may be satisfied by completion of special examination.
2. History 39-40, 71-72, Political Science 9-10, or Economics 1-2. (May be taken in either freshman or sophomore year.) ..... 6	Economics 1-2, History 39-40, 71-72, Political Science 9-10, or Economics 1-2. (May be elected group—see above.)
Botany 1-2, Chemistry 11-12 (12-21)..... 6 or 6, 7 (5, 6) or Zoology 1-2..... 8 (May be taken in either freshman or sophomore year.)	(a) Biology 1-2, Botany 1-2, Geology 1-2, or Chemistry 11-12 (12-21), Mathematics 1-2, 5, 7 (6, 7) (5, 6)..... (24 to 28 hours to be selected) Not more than three courses from
1 with approval of Faculty Adviser..... 22 to 24	To be selected with approval of Faculty Adviser
or statement of requirement	See page 38 for statement of requirement
60 or 62	

<sup>1</sup> Courses taken in any one department. Not more than one course in any one of the groups of subjects listed. Student should obtain the advice of the department concerned for the intended major.

Students who have had high school courses in these subjects may take the beginning courses in these subjects in the department concerned.

## COLUMBIAN COLLEGE

### THE FACULTY

- Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
\*Henry Grattan Doyle, A.M., *Dean of Columbian College*  
Christopher Browne Garnett, Jr., Ph.D., Litt.D., *Assistant Dean of Columbian College*

### STAFF OF INSTRUCTION

- Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
\*Henry Grattan Doyle, A.M., *Professor of Romance Languages*  
Robert Fiske Griggs, Ph.D., *Professor of Botany*  
John Donaldson, Ph.D., *Professor of Political Economy*  
Norris Ingersoll Crandall, M.Arch., *Professor of Art*  
Colin Mackenzie Mackall, Ph.D., *Professor of Chemistry*  
Edward Henry Sehr, Ph.D., *Professor of German*  
Robert Whitney Bolwell, Ph.D., *Professor of American Literature*  
Walter Lynn Cheney, Ph.D., *Professor of Physics*  
James Henry Taylor, Ph.D., *Professor of Mathematics*  
Willard Hayes Yeager, A.M., *Depew Professor of Public Speaking*  
Elmer Louis Kayser, Ph.D., *Professor of European History*  
Donnell Brooks Young, Ph.D., *Professor of Zoology*  
Frank Mark Weida, Ph.D., *Professor of Statistics*  
Warren Reed West, Ph.D., *Professor of Political Science*  
\*Edward Teller, Ph.D., *Professor of Physics*  
Lowell Ragatz, Ph.D., *Professor of European History*  
Francis Edgar Johnston, Ph.D., *Professor of Mathematics*  
\*Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*  
William Crane Johnstone, Jr., Ph.D., *Professor of Political Science*  
\*Mitchell Dreese, Ph.D., *Professor of Educational Psychology*  
Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
Alva Curtis Wilgus, Ph.D., *Professor of Hispanic American History*  
James Christopher Corliss, A.M., *Adjunct Professor of Inter-American Economics*  
Arthur Edward Burns, Ph.D., *Adjunct Professor of Economics*  
John Albert Tillema, Ph.D., LL.M., S.J.D., *Associate Professor of Political Science*  
Courtland Darke Baker, Ph.D., *Associate Professor of English*  
Alan Thomas Deibert, A.M., *Associate Professor of Romance Languages*  
Florence Marie Mears, Ph.D., *Associate Professor of Mathematics*  
Paul William Bowman, Ph.D., *Associate Professor of Biology*  
\*Raymond John Seeger, Ph.D., *Associate Professor of Physics*

\* On war leave 1943-44.



Lawson Edwin Yocum, Ph.D., *Associate Professor of Botany*  
 Christopher Browne Garnett, Jr., Ph.D., Litt.D., *Associate Professor of Philosophy*

\*Wood Gray, Ph.D., *Associate Professor of American History*

Audley Lawrence Smith, Ph.D., *Associate Professor of English*

Thelma Hunt, Ph.D., M.D., *Associate Professor of Psychology*

\*Harold Friend Harding, Ph.D., *Associate Professor of Public Speaking*

Ira Bowers Hansen, Ph.D., *Associate Professor of Zoology*

\*Edward Campion Acheson, Ph.D., *Associate Professor of Finance*

\*John Withrow Brewer, Ph.D., *Associate Professor of International Law*

\*Donald Chenoweth Kline, B.Arch., *Associate Professor of Art*

Carl Douglas Wells, B.D., Ph.D., *Associate Professor of Sociology*

\*John Francis Latimer, Ph.D., *Associate Professor of Classical Languages*

\*Louis Clark Keating, Ph.D., *Associate Professor of Romance Languages*

Samuel Nathaniel Wrenn, Ph.D., *Associate Professor of Chemistry*

\*Charles Rudolph Naeser, Ph.D., *Associate Professor of Chemistry*

\*Howard Maxwell Merriman, Ph.D., *Associate Professor of American*

*Diplomatic History*

Ernest Sewall Shepard, A.M., *Associate Professor of English*

DeWitt Clinton Knowles, Jr., M.S., *Associate Professor of Chemistry*

\*George Winchester Stone, Jr., Ph.D., *Associate Professor of English*

Donald Stevenson Watson, Ph.D., *Associate Professor of Economics*

Fred Salisbury Tupper, Ph.D., *Associate Professor of English*

Maurice Hart Van Horn, Ph.D., *Associate Professor of Chemistry*

\*Henry Goddard Roberts, A.M., *Assistant Professor of Public Speaking*

\*Steuart Henderson Britt, Ph.D., *Assistant Professor of Psychology*

John Porter Foley, Jr., Ph.D., *Assistant Professor of Psychology*

Lloyd Ancil Spindler, Sc.D., *Lecturer in Zoology*

Howard Wissler Bond, Ph.D., *Lecturer in Chemistry*

COMMITTEES†

THE DEAN'S COUNCIL §

1944

Paul William Bowman

Ernest Sewall Shepard

1945

Merle Irving Protzman

Thelma Hunt

1946

Colin Mackenzie Mackall

Florence Marie Mears

\* On war leave 1943-44.

† The President of the University and the Dean of Columbian College are members ex officio of all committees.

§ Elected by the Faculty.

COMMITTEE ON ADMISSION AND ADVANCED STANDING

Frank Mark Weida, *Chairman*  
Ira Bowers Hansen, *Secretary*  
Ernest Sewall Shepard  
Maurice Hart Van Horn  
Donald Stevenson Watson  
Edward Henry Sehart

COMMITTEE ON STUDIES

The Dean of the College, *Chairman*  
Wolfram Karl Legner  
(*Languages and Literatures*)  
Frank Mark Weida  
(*Mathematics and Physical Sciences*)  
Lawson Edwin Yocum  
(*Natural Sciences*)  
Alva Curtis Wilgus  
(*Social Sciences*)

COMMITTEE ON SCHOLARSHIP

Edwin Lawson Yocum, *Chairman*  
Donald Stevenson Watson  
Fred Salisbury Tupper

DIVISIONAL ORGANIZATIONS

LANGUAGES AND LITERATURES

Edward Henry Sehart, *Chairman*  
Audley Lawrence Smith, *Secretary*

Educational Committee

Wolfram Karl Legner, *Chairman*  
Merle Irving Protzman  
Courtland Darke Baker

MATHEMATICS AND THE PHYSICAL SCIENCES

Francis Edgar Johnston, *Chairman*  
Maurice Hart Van Horn, *Secretary*

Educational Committee

Frank Mark Weida, *Chairman*  
Thomas Benjamin Brown  
Samuel Nathaniel Wrenn

NATURAL SCIENCES

Ira Bowers Hansen, *Chairman*  
Edith Elizabeth Mortensen, *Secretary*

## Educational Committee

Lawson Edwin Yocum, *Chairman*

Chester Elwood Leese

John Porter Foley, Jr.

## SOCIAL SCIENCES

Donald Stevenson Watson, *Chairman*James Christopher Corliss, *Secretary*

## Educational Committee

Alva Curtis Wilgus, *Chairman*

Willard Hayes Yeager

Frank Mark Weida

## GENERAL INFORMATION

## INTRODUCTORY

Columbian College was founded in 1821. James Monroe, then President of the United States, aided in obtaining the charter from Congress which established "The Columbian College in the District of Columbia" for the "sole and exclusive purpose of educating youth in the English, learned and foreign languages, the liberal arts, sciences and literature", with full power to confer all degrees "usually granted and conferred in colleges".

In 1930, when the Junior College was established, the name "Columbian College" was bestowed upon the senior college of liberal arts.

## THE COLUMBIAN COLLEGE PROGRAM

In The George Washington University, the program for liberal arts and sciences extends from the general collegiate education of the Junior College (the freshman and sophomore years), through the instruction for the Bachelor's degrees of Columbian College (the junior and senior years), and the studies for the Master's degrees which are also in Columbian College, to the graduate discipline leading to the degree of Doctor of Philosophy, which is administered by the Graduate Council.

The purpose of Columbian College is to round out the program of liberal education begun in the Junior College and to bring to a focus educationally the individual talents and aptitudes of the student of liberal arts.

The program involves a comprehensive survey of a field of study, together with such knowledge of other fields as will contribute to the general educational development of the student. A field of study may be confined to one department or may involve a group of related courses in more than one department, or more than one division. The following



divisions have been established in The George Washington University based on the relationship of course content, interrelation of methods and prerequisites, and similarity of background and viewpoint:

1. *The Division of Languages and Literatures*.—The Departments of Classical Languages and Literatures, English, Germanic Languages and Literatures, and Romance Languages and Literatures.
2. *The Division of Mathematics and the Physical Sciences*.—The departments of Biochemistry, Chemistry, Mathematics, Pharmacology, Physics, and Statistics.
3. *The Division of the Natural Sciences*.—The departments of Anatomy, Bacteriology, Biology, Botany, Geology, Neurology, Pathology, Physiology, Psychology, and Zoology.
4. *The Division of the Social Sciences*.—The departments of Business Administration, Economics, Education, History, Journalism, Law, Philosophy, Political Science, Sociology, and Speech.

### REGULATIONS

*Students in Columbian College are subject to, and are expected to familiarize themselves with, the regulations regarding ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 10-23, and the University regulations stated on pages 35-40.*

### AMOUNT OF WORK

A full-time student who is not on probation may take ordinarily not more than seventeen credit hours. A student employed more than twenty-four hours a week, who is not on probation, may take not more than ten credit hours.

A full-time student whose quality-point index is 3.50 or higher may take not more than nineteen credit hours. An employed student who meets the same standard may take not more than twelve credit hours.

A student previously unemployed who accepts employment subsequent to registration or at any time during a term is required to report that fact immediately to the Dean, in order that adjustments in schedule may be made, if necessary, to bring his program within the Faculty's limitations upon the amount of work to be carried by an employed student.

### ATTENDANCE

The student is held responsible for all the work of the courses in which he is registered, and all absences must be excused by the instructor in charge before provision is made for the student to make up the work missed.

### CLASSIFICATION OF STUDENTS

A student who has completed less than thirty credit hours in Columbian College, and who has registered his major at the Office of the Registrar, is classed as a *junior*. A student who has completed thirty credit hours in



Columbian College, including at least one course in his major, is classed as a *senior*. A student who has satisfactorily completed the work for the Bachelor's degree, and whose program of study has been approved and filed in the Office of the Registrar, is classed as a *master in course*.

#### INDEPENDENT STUDY PLAN

Under the independent study plan a student of demonstrated capacity, with special interest in the subject matter of a course, may be permitted to undertake independent study under the personal direction of an instructor, in accordance with the rules of the division in which the subject falls. Credit under this plan is limited to the specific course-credits as designated in the list of courses of instruction in the CATALOGUE.

#### CORRESPONDENCE AND HOME-STUDY COURSES

No credit is given for work done by correspondence or in home-study courses.

#### THE BACHELOR'S DEGREES

Upon the satisfactory completion of the undergraduate requirements of Columbian College, the degree of Bachelor of Arts or Bachelor of Science is conferred.

In cooperation with the School of Medicine a seven-year curriculum leading to the combined degrees of Bachelor of Arts and Doctor of Medicine is offered.

In cooperation with the Law School a six-year curriculum leading to the combined degrees of Bachelor of Arts and Bachelor of Laws is offered.

#### REQUIREMENTS FOR THE DEGREES

##### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 35 and 36.

In order to graduate, a student must have a general quality-point index of at least 2.00. In addition, he must have a quality-point index of at least 2.50 in his major subject. Grades in courses taken at other institutions are not considered in computing the quality-point index.

In computing the quality-point index in the major, all second-group and third group courses in the major field taken at The George Washington University are included, even though minimum requirements for the major may have been exceeded. Grades received in first-group courses are not considered.

**Probation.**—A student must maintain a quality-point index of at least 2.00, or be placed on probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Committee on Scholarship.

**Suspension.**—A student who has a quality-point index below 1.00 or who is placed on probation for a third term, whether successive or after an interval, is suspended.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence to the Committee on Admission and Advanced Standing that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

For the purpose of these rules, the summer sessions are considered a term.

The foregoing scholarship rules are applied to a student with a limited schedule only when he has undertaken a minimum of fifteen credit hours.

### Use of Correct English

Any student whose English in any course whatever is deemed unsatisfactory may be reported by the instructor to the Dean and to the Committee on the Use of English. The Chairman of the Committee may assign supplementary work, without academic credit, varying in amount with the needs of the student. If the work prescribed is equivalent to a course, the regular tuition fee is charged. The granting of a degree may be delayed for failure to make up any such deficiency in English to the satisfaction of the Committee and the Dean.

### CURRICULUM REQUIREMENTS

Every candidate for graduation must satisfy curriculum A-I or A-II, listed below, leading to the degree of Bachelor of Arts or Bachelor of Science. The curriculum requirements include at least sixty credit hours beyond the requirements of the Junior College, and the satisfactory completion of the major (see "The Undergraduate Major", page 65). At least twenty-four credit hours must be taken in subjects not included in the major.\* Not more than twelve credit hours of professional courses may be included in the one hundred and twenty credit hours required for the Bachelor's degrees in Columbian College. Columbian College students electing professional courses under this rule must obtain the approval of the Dean of Columbian College.

\* Art, bacteriology, biochemistry, biology, botany, chemistry, classical languages and literatures, economics, English, geology, German, languages and literatures, history, mathematics, philosophy, physics, psychology, political science, physiology, Romance languages and literatures, sociology, speech, statistics, zoology.

After selecting a curriculum, a student may not change to another except by permission of the Dean and on condition that he fulfill the requirements of the curriculum to which he changes as of the date when the change is approved by the Dean.

The freshman and sophomore years of each curriculum will be found in the announcement of the Junior College.

Each student is required to select and file with the Registrar a choice of major\* upon entering Columbian College. He may change the major only with the consent of the Dean and of the Department or division concerned, and must meet the requirements for the major to which he changes as of the date when the change is approved by the Dean.

First-group courses may be required as prerequisites to undergraduate-major programs, but because of their introductory character may not be counted as part of such programs. (See "Explanation of Course Numbers".)

#### Examinations for Waiving Curriculum Requirements

A student desiring to omit a required or prerequisite course may take such examination as the department prescribes, and, on passing satisfactorily, he may be relieved of the curriculum or prerequisite requirement in that subject and may qualify for registration in an advanced course. Passing of this examination shall not entitle him to any credit toward the degree. A student desiring to take such examinations should make written request of the Dean.

A fee of \$5 for each examination is to be paid at the Office of the Comptroller and the receipt exhibited at the door of Room 105, Building D, on September 22 at 2.00 P.M. for the fall term, and on February 1 at 2:00 P.M. for the winter term. Two hours will be allowed for the examination. Should a student wish to take more than one examination, arrangements will be made accordingly.

#### Bachelor of Arts

*A-14. Curriculum Leading to the Degree of Bachelor of Arts.*—The work of the junior and senior years, including a major, must be approved by the major department or division and by the Dean.

*Combined Degrees of Bachelor of Arts and Doctor of Medicine.*—A candidate for the combined degrees of Bachelor of Arts and Doctor of Medicine must: (1) complete the premedical college requirements (see page 14 and curriculum A-I or A-II on the chart facing page 56); (2) fulfill the Columbian College residence requirement of at least thirty credit hours; (3) obtain the approval of the Dean of Columbian College at the time of entering the School of Medicine; (4) obtain the recom-

\* See pages 65-67 for a description of the undergraduate major.

† See the table of the Junior College curricula facing page 56.



commendation of the Dean of the School of Medicine at the completion of all prescribed courses in the first year of the School of Medicine, at which time the degree of Bachelor of Arts will be conferred (Professional work taken at another institution will not satisfy the major requirement for the combined degrees.); (5) maintain throughout the entire course the scholarship level required for graduation.

**Combined Degrees of Bachelor of Arts and Bachelor of Laws.**—A candidate for the combined degrees of Bachelor of Arts and Bachelor of Laws must: (1) complete three years of satisfactory college work; (2) fulfill the Columbian College residence requirement of at least thirty credit hours; (3) obtain the approval of the Dean of Columbian College at the time of entering the Law School; (4) obtain the recommendation of the Dean of the Law School at the completion of the first year of the Law School, at which time the degree of Bachelor of Arts will be conferred (Professional work taken at another institution will not satisfy the major requirement for the combined degrees.); (5) maintain throughout the entire course the scholarship level required for graduation.

### Bachelor of Science

**A-II.\* Curriculum Leading to the Degree of Bachelor of Science.**—The work of the junior and senior years, including a major in one of the sciences mentioned below, must be approved by the major department or division and by the Dean.

#### Biological Sciences

Biology  
Botany  
Geology  
Zoology

#### Physical Sciences

Chemistry  
Mathematics  
Physics

### THE UNDERGRADUATE MAJOR†

There are two types of undergraduate majors: the *New-Type* or field-of-study major; and the *Old-Type* or departmental major.

#### THE NEW-TYPE MAJOR

**Definition of New-Type Major.**—Each new-type major covers a carefully worked out field of coordinated study and is under the supervision of the division or divisions concerned. The content of the major is defined in terms of related subject matter, not in terms of courses and hours of credit. The passing of a written examination in the field of the major is evidence that the requirements for the major have been satisfied.

\*See the table of the Junior College curricula, facing page 66.

†For a complete description of the undergraduate major, see the special bulletin.



Under the new type, the following majors are offered: (1) American Thought and Civilization, (2) Biology, (3) English Literature, (4) French Literature, (5) Hispanic American Civilization and Culture, (6) Hispanic American Economics, (7) History, (8) International Relations, (9) Philosophy, (10) Spanish American Literature, (11) Spanish Literature, (12) Statistics, (13) Zoology.

Of the new-type majors offered, two, those in International Relations and in Biology, extend broadly over the work of their respective divisions, and another, that in the field of American Thought and Civilization, involves studies in two divisions, those of Languages and Literatures and of Social Sciences. The other majors, with the exception of the major in Spanish American Literature, replace old-type majors in their respective fields.

These major fields involve the departments of English, French, History, Philosophy, Spanish, Statistics, and Zoology. A new candidate for a major in the work of these departments must elect a new-type major. A student who began work on a major in these departments before the new-type major was established will be permitted to complete his old-type major.

### Proseminar in the Major

For the convenience of the student a proseminar course is offered in each field of study, under the supervision of the division in which the major is taken. This course, planned and administered by the professor or adviser of the major subject, will advise, guide, and instruct the student in his reading, study, and laboratory exercises in order to assist him in gaining a coordinated knowledge of his field. It is a presentation of the content and methods of the major field as a whole through the organization and coordination of the knowledge obtained in the various formal courses in the major subject and of material not usually included in such courses. This course is not required. Six credit hours, but no qualitative grade, may be assigned. When registered in this course, the student will have the privilege of visiting any other course offered in the college.

Proseminars are offered in new-type major fields and are open only to the student who has been accepted as a candidate under that specific new-type major.

### The Major Examination

The major examination will normally be taken by the student at the close of the senior year; in the case of the student on a limited schedule, the major examination may be taken not earlier than one calendar year

before graduation. A student who fails to pass a major examination may, at the discretion of the Columbian College Committee on Studies, be re-examined at a later regular major-examination period. The educational committees of the respective divisions will have general supervision of the preparation, reading, and grading of major examinations. Major examinations will be held in each regular term on dates fixed by the respective educational committees, but in no case later than January 15 for the fall term, May 15 for the winter term, and August 7 for the summer term.

#### THE OLD-TYPE MAJOR

Until further notice departmental majors will be offered in the following: Art, Botany, Chemistry, Classical Languages and Literatures, Economics, Geology, Germanic Languages and Literatures, Mathematics, Physics, Political Science, Psychology, Sociology, and Speech.

Requirements for the major will be found under the courses of instruction of the department concerned immediately following the listing of the faculty of the department.

#### THE MASTER'S DEGREES

Upon the satisfactory completion of the graduate requirements of Columbian College, the degree of Master of Arts or Master of Science is conferred.

#### DEFINITION OF THE MASTER'S WORK

The study leading to the degree of Master of Arts or Master of Science is a comprehensive survey of a field of knowledge. It is a continuation of the work of the student's undergraduate major and involves a greater acquaintance with scholarly method.

The student must satisfy certain minimum requirements as to previous preparation, residence, ability to read an approved modern foreign (European) language, and courses taken; but these requirements, while essential, are regarded primarily as qualifying measures. The student's knowledge of his field, as demonstrated by his thesis and by the results of his Master's examination (together with such other examinations involving special skills or techniques as the department or division may require), is the basis upon which the Master's degree is conferred.

#### REQUIREMENTS FOR THE DEGREES

##### RESIDENCE

An academic year of residence in Columbian College is required, i.e., completion of a minimum of thirty credit hours of work including the

thesis, which is counted as the equivalent of six credit hours of course work. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than twenty-seven weeks. Not more than twelve credit hours (which must be approved in advance by the Dean of Columbian College) may be taken in another school or division of this University, and such work may not be counted toward both a degree in that school or division and the Master's degree in Columbian College. No part of the minimum requirement may be taken elsewhere. All work for the degree of Master of Arts or Master of Science must be completed within a maximum of three years, unless the Dean's Council considers the circumstances so unusual as to justify an extension of time.

#### SCHOLARSHIP

A student whose scholarship is unsatisfactory may be suspended by the Dean upon recommendation of the division under which the student is working. Regarding the system of grading, see pages 35 and 36.

#### PROGRAM OF STUDIES

The student's program of studies must be outlined in detail at the beginning of his work, in triplicate on forms available at the Office of the Dean. Each program is subject to the approval of the department and the division. The program may be revised as the occasion requires, but any change necessitates a repetition of the procedure just described.

Courses numbered from 1 to 100 may not be credited toward the Master's degree, but may in certain instances be required as a basis for advanced work. (See "Explanation of Course Numbers".)

A student who expects to continue his studies for the degree of Doctor of Philosophy after receiving the Master's degree is strongly advised so to plan his program from the beginning that work for the lower degree may help to prepare him for the higher.

#### ADMISSION TO CANDIDACY

A student must have been admitted to candidacy, at the discretion of the department and the division concerned, before he begins the last half of his work for the Master's degree. Application for admission to candidacy is made on a form obtained at the Office of the Registrar, and must be approved by the appropriate representative of the division and by the Dean. If a prospective candidate, in his previous academic work, has not substantially satisfied the prerequisites for the Master's degree, including the undergraduate major as defined by the appropriate department or division, he will not be admitted to candidacy until such deficiency has been made up.



Before being admitted to candidacy the student must also show that he has a reading knowledge (certified by the appropriate foreign-language department) of at least one modern foreign (European) language, selected by the division under which he is studying. A student whose field is a modern foreign language or literature may not offer that language in satisfaction of the reading-knowledge requirement. Examinations in modern foreign languages will be given on Saturday, October 16, Saturday, February 5, and Saturday, May 6, at 2:00 P.M. In exceptional circumstances the respective departments will arrange for examinations at other times.

### THE MASTER'S THESIS

The thesis may be of a research, expository, critical, or creative type. The main purpose of a Master's thesis is to demonstrate the student's ability to make independent use of the information and training acquired through his other disciplines, and to furnish objective evidence of his constructive powers in his chosen field. Registration for the thesis must be no later than the beginning of the final year of preparation, unless the professor in charge of the thesis permits registration at the beginning of the final term. The choice of the thesis subject must be approved by the professor in charge of the student's field and recorded in the Office of the Registrar by the date announced in the University calendar. Registration for the thesis is ordinarily made on the basis of three credit hours for two successive terms. In exceptional cases, and with the approval of the professor in charge of the thesis, the student may register for the entire six credit hours during a single term. The typewritten thesis in its final form must have the approval of the professor in charge of the student's field and of the educational committee of the division concerned, and must be presented to the Dean by the student not later than the date announced in the University calendar. Requirements regarding the form of the thesis are stated on page 39, and additional information will be supplied by the Dean.

Payment of tuition for the thesis entitles the candidate, during the academic year of registration, to the advice and direction of the member of the faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year may be granted without further tuition payment. If the preparation of the thesis extends beyond the two-year period the student must register for it again, and pay tuition on the same basis as for a repeated course.

### THE MASTER'S EXAMINATION

In addition to such other examinations as may be required, the candidate must pass a general written examination on the major subject.



Examinations will be held on dates fixed by the respective educational committees, but in no case later than January 15 for the fall term, May 15 for the winter term, and August 7 for the summer term. The provisions of the new plan for undergraduate majors, as far as they concern the general examination for the major, also apply to the Master's examination. A candidate who fails to pass the Master's examination may, in exceptional circumstances and with the specific approval of the division concerned, repeat the examination, but only after the lapse of one term. If he fails a second time, no further opportunity to take the examination will be permitted.

## THE GRADUATE COUNCIL

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Robert Whitney Bolwell, Ph.D., *Chairman of the Graduate Council*

### MEMBERS OF THE COUNCIL

Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
Charles Sager Collier, A.B., LL.B., S.J.D., *Professor of Law*  
\*Henry Grattan Doyle, A.M., *Professor of Romance Languages*  
Robert Fiske Griggs, Ph.D., *Professor of Botany*  
John Donaldson, Ph.D., *Professor of Political Economy*  
Joseph Hiram Roc, Ph.D., *Professor of Biochemistry*  
George Byron Roth, A.B., M.D., *Professor of Pharmacology*  
Colin Mackenzie Mackall, Ph.D., *Professor of Chemistry*  
Edward Henry Schrt, Ph.D., *Professor of German*  
Robert Whitney Bolwell, Ph.D., *Professor of American Literature*  
William Cullen French, Ph.D., *Professor of Education*  
James Henry Taylor, Ph.D., *Professor of Mathematics*  
Errett Cyril Albritton, A.B., M.D., *Professor of Physiology*  
Elmer Louis Kayser, Ph.D., *Professor of European History*  
Donnell Brooks Young, Ph.D., *Professor of Zoology*  
George Antony Gamow, Ph.D., *Professor of Theoretical Physics*  
\*Edward Teller, Ph.D., *Professor of Physics*  
Frank Mark Weida, Ph.D., *Professor of Statistics*  
Warren Reed West, Ph.D., *Professor of Political Science*  
Lowell Ragatz, Ph.D., *Professor of European History*  
Francis Edgar Johnston, Ph.D., *Professor of Mathematics*  
\*Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*  
William Crane Johnstone, Jr., Ph.D., *Professor of Political Science*  
\*Mitchell Dreese, Ph.D., *Professor of Educational Psychology*  
Leland Wilbur Parr, Ph.D., *Professor of Bacteriology*  
Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*  
Alva Curtis Wilgus, Ph.D., *Professor of Hispanic American History*  
Ralph Edward Gibson, Ph.D., *Adjunct Professor of Chemistry*  
‡Joseph Quincy Adams, Ph.D., Litt.D., *Adjunct Professor of English*  
\*William Webster Diehl, Ph.D., *Adjunct Professor of Mycology*  
Arthur Edward Burns, Ph.D., *Adjunct Professor of Economics*  
Chester Elwood Leese, Ph.D., *Associate Professor of Physiology*  
\*Raymond John Seeger, Ph.D., *Associate Professor of Physics*  
\*Wood Gray, Ph.D., *Associate Professor of American History*

\* On war leave 1943-44.

‡ On leave of absence 1943-44.

- \*John Withrow Brewer, Ph.D., *Associate Professor of International Law*  
 \*Howard Maxwell Merriman, Ph.D., *Associate Professor of American Diplomatic History*  
 \*George Winchester Stone, Jr., Ph.D., *Associate Professor of English*  
 Donald Stevenson Watson, Ph.D., *Associate Professor of Economics*  
 Fred Salisbury Tupper, Ph.D., *Associate Professor of English*  
 \*Steuart Henderson Britt, Ph.D., *Assistant Professor of Psychology*  
 Angus MacIvor Griffin, Ph.D., *Assistant Professor of Bacteriology*

#### CONSULTANTS IN RESEARCH

- Allen Buchanan, Ph.D., *Research Associate in Economics*  
 Paul Simon Galtsoff, Ph.D., *Research Associate in Invertebrate Zoology*  
 Willard Hull Wright, D.V.M., Ph.D., *Research Associate in Parasitology*

#### GENERAL INFORMATION

##### INTRODUCTORY

The Graduate Council, a reorganization of the Graduate School of Letters and Sciences which had heretofore administered the disciplines leading to the Master of Arts and Doctor of Philosophy degrees, was instituted in 1930. Since then the Graduate Council has offered a program of advanced study and research leading only to the degree of Doctor of Philosophy.

The purpose of the Graduate Council of The George Washington University is to create a fellowship between the Masters in Research in the various fields and the students who have apprenticed themselves to these Masters, and through this fellowship to foster a creative spirit in the graduate studies leading to the degree of Doctor of Philosophy. The basic conception of this degree is the attainment of a mastery of related fields of knowledge, achieved without regard to specific courses of instruction and culminating, through original research, in a contribution to knowledge. It is hoped that in the development of this program the historical relationship of master and apprentice may be revived. In keeping with this idea a student, after satisfying certain requirements is responsible solely to the Master under whom he has signified his desire to work.

##### APPLICATION TO UNDERTAKE DOCTORATE DISCIPLINES

A student wishing to undertake work under the Graduate Council must possess an adequate academic preparation for advanced study in the proposed field, as evidenced by satisfactory Bachelor's and Master's

\* On war leave 1943-44.

degrees, or the equivalent, together with acceptable personal qualities and capacity for creative work.

After an applicant's credentials have been filed with the Director of Admissions of the University, the Chairman of the Graduate Council will appoint a consultative committee (usually composed of five members), which will evaluate the records submitted and interview the applicant. The applicant will also meet the personnel committee of the Graduate Council. When the recommendations of the consultative and personnel committees have been presented, the Graduate Council will act upon the application for candidacy for Fellowship in the Graduate Council.

#### CANDIDACY FOR COUNCIL FELLOWSHIP EXAMINATION

If accepted, the candidate must demonstrate his ability to read both French and German and must satisfy all other prerequisites for advanced study specified by the consultative committee. The necessary examinations will be arranged by the Chairman of the Graduate Council.

The consultative committee will, after conference with the candidate, designate a program of study in the several fields of learning on which the candidate must stand examination as a part of the requirements for admission to Fellowship in the Graduate Council. Ordinarily courses of instruction are assigned by the consultative committee only to make up deficiencies.

The candidate will be directed by his consultative committee throughout the entire period of preparation for this Council Fellowship examination.

#### THE COUNCIL FELLOWSHIP EXAMINATION

Upon application of the consultative committee the Chairman of the Graduate Council will set a date for the Council Fellowship examination and appoint an examining committee, composed of the members of the consultative committee and at least two other members of the Graduate Council. The Council Fellowship examination will be a written examination, conducted during a period of one week. The candidate, in consultation with the Chairman of the Graduate Council, will have designated the Master with whom he wishes to undertake research if admitted as a Fellow. If he is successful in the Council Fellowship examination and is accepted by the Master, the candidate will be nominated to the Graduate Council for election as a Fellow.

#### FELLOWSHIP IN THE GRADUATE COUNCIL

When a student has been admitted as a Fellow of the Graduate Council, his consultative committee will be discharged and he will become



responsible to his Master alone for the development of his field, the selection of a thesis subject, and the preparation of his thesis. He will be formally inducted into Fellowship, which carries with it the privilege of membership in the Graduate Council, including participation in its general meetings, and unrestricted use of all the academic facilities of the University. The Master may refer the Fellow to other institutions for special study, under arrangements made by the Council.

#### THE THESIS

Not later than the date specified in the University calendar the Fellow must submit to the Chairman of the Graduate Council one typewritten original and two legible and complete carbon copies of his thesis in its final form and also a typewritten summary of the thesis consisting of not more than 2,500 words. Requirements regarding the form of the thesis are stated on page 39, and additional information will be supplied by the Chairman.

The summaries of accepted theses will be printed in a volume forming a number of the University BULLETIN. The successful candidate for the doctorate is required, before receiving his degree, to pay a fee to cover the expense of printing the summary of his thesis.

#### THE FINAL EXAMINATION

After the presentation of the Fellow's thesis, the Chairman of the Council, upon application of the Master, will set the date of the final examination and appoint the final examination committee. The examiners will include at least five members of the Graduate Council other than the Master, and at least two qualified experts in the Fellow's special field from other institutions of research. The Master will present the Fellow to the examining committee. In this final examination, which will be oral, the Fellow will defend his thesis in relation to the field of learning in which it lies. The examination will be public.

#### THE DEGREE OF DOCTOR OF PHILOSOPHY

If the Fellow satisfies this committee in respect to the high quality of his contribution to knowledge and his mastery of the field, he will be recommended by the committee to the Graduate Council and, if approved, nominated by the Council to the Board of Trustees of the University for the degree of Doctor of Philosophy.

#### TEACHING FELLOWSHIPS

Teaching fellowships are available in the departments of Bacteriology, Biochemistry, Botany, Chemistry, Economics, English, History, Physics, Psychology, Romance Languages, and Statistics. An announcement re-

garding qualifications and application for these fellowships will be sent upon request to the Chairman of the Graduate Council.

#### REGULATIONS

*Candidates and Fellows in the Graduate Council are subject to, and are expected to familiarize themselves with, the regulations regarding ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 10-23, and the University regulations stated on pages 35-40.*

#### RESIDENCE AND CONTINUOUS REGISTRATION

The Graduate Council expects all students to work on their doctoral programs in residence, although there is no formal regulation concerning the amount of time of resident study either in preparation for the Council Fellowship examination or as a Fellow of the Council engaged in doctoral research. The student who undertakes either part of the doctoral program on full or limited schedule must, in accordance with University regulations, maintain continuous registration under the Graduate Council even when the Council has granted a leave of absence for study or residence elsewhere. Failure to maintain registration in each term of the academic year disrupts the residence status of the student under his consultative committee or his Master in Research. In such a case, the student must reapply for admission to the Council, under whatever new conditions and regulations are set up by his consultative committee or by his Master in Research.

---

A pamphlet describing details of the Graduate Council program will be sent upon request to the Office of the Graduate Council.



## THE SCHOOL OF MEDICINE

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Walter Andrew Bloedorn, A.M., M.D., *Dean of the School of Medicine*

---

William Thornwall Davis, M.D., *Professor of Ophthalmology*  
Joseph Hiram Roe, Ph.D., *Professor of Biochemistry*  
Harry Hampton Donnally, A.M., M.D., *Professor of Pediatrics*  
George Byron Roth, A.B., M.D., *Professor of Pharmacology*  
Walter Freeman, Ph.D., M.D., *Professor of Neurology*  
Walter Andrew Bloedorn, A.M., M.D., *Professor of Medicine*  
Charles Stanley White, M.D., *Professor of Surgery*  
Radford Brown, M.D., *Professor of Obstetrics and Gynecology*  
Howard Francis Kane, A.B., M.D., *Professor of Obstetrics and Gynecology*  
Errett Cyril Albritton, A.B., M.D., *Professor of Physiology*  
Roger Morrison Choisser, B.S., M.D., *Professor of Pathology*  
Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry*  
Leland Wilbur Parr, Ph.D., *Professor of Bacteriology*  
Frederick August Reuter, M.D., *Professor of Urology*  
Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology*  
Claude Matthews McFall, LL.B., Ph.D., *Professor of Anatomy*  
Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology*  
Philip Weatherly Huntington, M.D., *Professor of Military Science and Tactics*  
John Edward Lind, M.D., *Clinical Professor of Psychiatry*  
Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
\*Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
James Winston Watts, B.S., M.D., *Clinical Professor of Neurosurgery*  
Chester Elwood Leese, Ph.D., *Associate Professor of Physiology*  
Thomas Martin Peery, A.B., M.D., *Associate Professor of Pathology*  
Ernest Alfred Watson Sheppard, M.D.C.M., *Associate Clinical Professor of Ophthalmology*  
Frank Adelbert Hornaday, M.S., M.D., *Associate Clinical Professor of Medicine*

\* On military leave 1943-44



## COMMITTEES\*

## THE DEAN'S COUNCIL

Harry Hampton Donnally      Charles Stanley White  
Joseph Hiram Roe

## COMMITTEE ON ADMINISTRATION OF THE UNIVERSITY HOSPITAL AND DISPENSARY

Walter Andrew Bloedorn, *Chairman*  
Howard Francis Kane      Charles Stanley White

## COMMITTEE ON ADMISSIONS

Joseph Hiram Roe, *Chairman*  
Leland Wilbur Parr

## COMMITTEE ON CURRICULUM

Roger Morrison Choisser, *Chairman*  
Leland Wilbur Parr      Harry Fillmore Dowling

## COMMITTEE ON GRADUATE STUDIES

Errett Cyril Albritton, *Chairman*  
Walter Freeman      George Byron Roth

## COMMITTEE ON LIBRARY

George Byron Roth, *Chairman*  
John Edward Lind      Harry Ford Anderson

## COMMITTEE ON RESEARCH

Roger Morrison Choisser, *Chairman*  
Errett Cyril Albritton

## COMMITTEE ON SCHOLARSHIP

Joseph Hiram Roe, *Chairman*  
Howard Francis Kane      Roger Morrison Choisser  
Leland Wilbur Parr

\* The President of the University and the Dean of the School of Medicine are members *ex officio* of all committees.

## HOSPITAL STAFF APPOINTMENTS

Members of the staff assigned to the University Hospital and Dispensary and those assigned to the Gallinger Hospital Service are listed in the bulletin of the School of Medicine.

## GENERAL INFORMATION

### INTRODUCTORY

The School of Medicine of The George Washington University was opened in March 1825; of the medical schools now in existence in the United States, it is the eleventh in chronological order of founding. The University Hospital and Dispensary were established in 1898 and made a part of the organization of the School.

The School is a member of the Association of American Medical Colleges and is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association. The degrees of the School of Medicine are recognized by all state examining boards.

### PLAN OF INSTRUCTION

The George Washington University School of Medicine, recognizing the urgent need for medical services during the war period, has reorganized its course to permit the completion of the customary four academic years in three calendar years. Each academic year will be composed of two terms totaling thirty-six weeks. A new class will be admitted every other term. In approving the plan adopted by the Faculty of the School of Medicine, the Board of Trustees authorized its continuance for the duration of the war.

### EQUIPMENT AND FACILITIES

*Medical School Building.*—The building housing the School of Medicine is a five-story structure with lecture rooms and classrooms, laboratories, and students' rooms.

*Laboratories.*—A four-story laboratory building is adjacent to the main medical building. The major laboratories are for anatomy, histology and embryology, bacteriology, hygiene and preventive medicine, biochemistry, pathology, pharmacology and physiology, and clinical microscopy. They are fully equipped to enable students to pursue adequately the laboratory courses and to acquire the technical skill necessary in modern clinical and investigative work.

*Medical Library.*—The Library contains a selected reference collection of more than 5,000 volumes, and provision is made to add to it the important new medical works. The principal medical periodicals are received regularly.

*The University Hospital and the University Dispensary.*—The Hospital and Dispensary are adjacent to the School of Medicine and are controlled by the Faculty of Medicine.

#### GOVERNMENT LIBRARIES AND MUSEUMS

The Library of the Surgeon General's Office of the United States Army is the most complete general medical library in the world. In addition to its great collections of medical works, all leading medical periodicals of the world are available. This Library, as well as the Library of Congress, the Public Library, and the many excellent libraries of the various government departments, is available to students and teachers through a service maintained by the Medical School Library.

The Army Medical Museum affords opportunity for studying the conditions met in military and general medicine and surgery. Its collection of anatomical and pathological specimens is unequaled by any other museum in this country. The Museum of Hygiene, the National Museum, the Smithsonian Institution, the Botanic Gardens, and the Department of Agriculture all afford opportunities for study in Medicine and its allied sciences.

#### CLINICS

The city of Washington, with about a million inhabitants, provides ample clinical material. The University Hospital and Dispensary furnish clinical facilities and a large proportion of the materials studied in the courses in pathology and clinical pathology.

*The University Hospital.*—All clinics are under the supervision of the Dean, who is also Medical Director of the Hospital. This insures the highest possible utilization of available clinical material for teaching purposes and the proper supervision of clinicians and students; it brings the individual student into direct contact with patients and requires him to do, under authoritative supervision, the clinical and laboratory work necessary for diagnosis and treatment; and it permits proper interpretation of the conditions occurring during the progress of cases and promotes the keeping of adequate records. Clinical and clinico-pathological conferences are held in which the history of cases, the physical findings, laboratory records, and the post-mortem pathology when available, are presented and correlated.

*The University Dispensary.*—The Dispensary has a large out-patient service in all departments, to which several thousand visits are made



annually. Fourth-year students are assigned in rotation by sections for clinical instruction in the Dispensary.

*Gallinger Municipal Hospital.*—Clinical instruction is available in all branches of medicine. A great wealth of clinical material is afforded in this hospital by ordinance of the municipal authorities of the District of Columbia, whereby one half of the patients are assigned for treatment and clinical teaching to members of the Faculty of this School, nominated by this University. Third year students serve their clinical clerkships at this institution.

*Children's Hospital.*—Clinical instruction in pediatrics, dermatology, and orthopedic surgery.

*Emergency Hospital and Central Dispensary.*—Clinical instruction in medicine, surgery, obstetrics and gynecology, and the specialties.

*Garfield Memorial Hospital.*—Clinical instruction in gynecology and obstetrics in the out-patient department, on the wards, and in the operating room.

*St. Elizabeths Hospital.*—Clinical instruction in mental and nervous diseases, medicine, post-mortem work, and gross pathology. This hospital, with five and one half thousand beds, is maintained by the United States Government. The psychiatric clinic is one of the largest in the world.

*Episcopal Eye, Ear and Throat Hospital.*—Clinical instruction in ophthalmology, otology, rhinology, and laryngology.

*Columbia Hospital.*—Clinical instruction in gynecology and obstetrics in the out-patient department, on the wards, and in the operating room.

#### ADMISSION, REGISTRATION, FEES AND FINANCIAL REGULATIONS

*Students in the School of Medicine are subject to, and are expected to familiarize themselves with, the regulations stated on pages 10-23.*

Registration in the School of Medicine is for a period of one academic year of two terms. After the student has entered the courses of instruction he is obligated for the full tuition for the year. No part of the tuition will be refunded upon withdrawal or dismissal for any cause. Acceptance by the School of a student's fees does not in any way obligate the School to accept the student for any subsequent year.

A fee of \$3 to defray the costs of completing the records for final consideration for admission must accompany each application. Fees for each term (including the University fee) are \$275, payable in advance.

Because the number of applicants far exceeds the limit of each class, places can be reserved for only those qualified applicants who remit a deposit of \$100 which will be credited toward the tuition of the first term. Should the matriculant be unable to attend, this initial payment, less a charge of \$50 for registration, transfer, etc., will be returned up to one month before the opening of the term.



Credit for work will not be given until, at the completion of a laboratory course, the student has replaced or paid for all articles of equipment or other University property which he has lost, broken, or destroyed. All breakage or loss not directly traceable to an individual student is assessed *pro rata*.

#### COST OF TEXTBOOKS AND STUDENT EQUIPMENT

The minimum cost of necessary textbooks and student equipment (microscope, drawing materials, glass slides, clinical thermometer, stethoscope, hemocytometer, etc.) is approximately as follows: first year, \$250; second year, \$100; third year, \$75; fourth year, \$75; total \$500.

#### REGULATIONS

*Students in the School of Medicine are subject to, and are expected to familiarize themselves with, the general University regulations stated on pages 35-40.*

#### ABSENCE

Absence is not allowed unless an excuse is obtained from the Dean or the instructor.

Absence consists in being away from a class or clinic during a scheduled period, entering after the class or clinic has begun, or leaving before either is dismissed.

Excuse for absence due to sickness must be accompanied by a certificate signed by the attending physician and must be filed in the Office of the Dean.

For every unexcused absence a department will deduct one-half of one per cent from the student's final grade in the subject involved.

#### GRADES

The following grading system is used: *A* (90-100); *B* (80-89); *C* (75-79); *D* (65-74), condition; *E* (below 64) failure; *Inc.*, incomplete. The passing grade in each subject is *C*.

#### FAILURE

A student who has failed in any subject will not be advanced until such failure is removed and then only by authority of the Committee on Scholarship. All conditions must be removed at the next make-up examination period provided for this purpose.

### EXAMINATIONS

Examinations, which may be written, oral, or practical, will be held at the end of each term.

A student who fails to appear at a regularly scheduled final examination will not be examined until the next regular examination, except by special permission of the Committee on Scholarship. For make-up examinations to remove conditions, a fee of \$5 will be charged for each subject.

All students in the School of Medicine are required to take Part I and Part II of the National Board Examinations, except that students from those states and foreign countries which do not recognize the National Board may be exempted from Part II by action of the Committee on Scholarship.

### SPECIAL UNDERGRADUATE AND GRADUATE ADVANTAGES

#### PHYSICAL EXAMINATIONS\*

All first-year students are given a comprehensive physical examination by the Department of Health Administration upon admission to the School of Medicine. The students are informed of the findings and advised regarding such measures as will tend to maintain a high standard of health.

In addition medical students benefit from the complete Tuberculosis Case Finding Program which the School has maintained since 1938-39. Under this program all students receive tuberculin tests, X-ray examinations, and such special attention from chest specialists as is necessary to reduce to a minimum the dangers from tuberculosis to which medical students are believed to be subject. Students are immunized against those diseases for which proven prophylactics exist.

#### RESERVE OFFICERS' TRAINING CORPS, U. S. ARMY, MEDICAL UNIT

A Medical Unit of the Reserve Officers' Training Corps is established in this School by authority of the Secretary of War, and an officer of the Medical Corps of the Army is detailed to the University for supervision and instruction of the unit.

Membership in the Unit, which is voluntary, is open to any physically fit male student who is a citizen of the United States. The instruction is divided into two two-year courses, the basic and the advanced. Students who satisfactorily complete the basic course may, up to the quota allowed by the War Department, enter the advanced course. A student

\* A charge of \$2 is made if a student fails to appear for a physical examination during the period set for this purpose.

who enters the advanced course receives approximately \$200 from the Government. He is obligated to complete the course.

A student who successfully completes the course is recommended for a commission in the Medical Section, Officers' Reserve Corps, if he desires appointment. A graduate may, after completion of one year's internship in a civil hospital, compete in the examinations held yearly for appointment as first lieutenant in the Medical Corps, Regular Army.

All students in the School of Medicine are required to attend all lectures for the Reserve Officers' Training Unit.

#### HOSPITAL APPOINTMENTS

Interns and residents are appointed annually in the University Hospital.

Students who, after graduation, desire internships in other hospitals should apply directly to the institution which they wish to enter. A list of hospitals approved for intern training is published annually in the *Journal of the American Medical Association*, and a copy of the list may be consulted in the Office of the Dean.

#### COMMISSION ON LICENSURE, DISTRICT OF COLUMBIA

Graduates who wish to take the examinations of the Commission on Licensure, District of Columbia, or desire to use the District license for reciprocity with the states, should apply to the Secretary, Commission on Licensure, Healing Arts Practice Act, District Building, Washington, D. C.

#### DEPARTMENTS OF INSTRUCTION

The work of the School is organized under the following departments: Anatomy; Bacteriology, Hygiene, and Preventive Medicine; Biochemistry; Dermatology and Syphilology; Medicine; Military Science and Tactics; Neurology; Obstetrics and Gynecology; Ophthalmology; Otorhino-laryngology; Pathology; Pediatrics; Pharmacology and Therapeutics; Physiology; Psychiatry; Surgery; and Urology.

#### CLINICS

Courses of clinical instruction are included in the announcements of the clinical departments. The Dean prepares schedules of clinics and of student section assignments to the various hospitals and dispensaries.

#### THE DEGREE OF DOCTOR OF MEDICINE

Upon the satisfactory completion of the requirements of the School of Medicine, the degree of Doctor of Medicine is conferred.



### REQUIREMENTS FOR THE DEGREE

Every candidate for graduation with the degree of Doctor of Medicine must be at least twenty-one years of age, of reputable character, and free of all indebtedness to the University. He must have satisfied the admission requirements, completed satisfactorily not less than four academic years of study as a matriculated student in Medicine, completed all required courses, and passed satisfactorily all prescribed examinations.

### COMBINED ARTS AND MEDICINE CURRICULUM

The candidate registers in the Junior College for the freshman and sophomore years of the premedical curriculum and in Columbian College for the junior year. In order to be recommended for the degree of Bachelor of Arts, he must complete at least ninety credit hours of prescribed college work exclusive of Physical Education (at least thirty credit hours and one year of residence must be completed in Columbian College), and the first year of the medical curriculum. Upon satisfactory completion of the fourth year in the medical curriculum the student becomes eligible for the degree of Doctor of Medicine.

### HONORS

A candidate who has completed the four-year medical course with an average grade of *A* may be recommended for graduation "with distinction".





## THE LAW SCHOOL

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
William Cabell Van Vleck, A.B., LL.B., S.J.D., *Dean of the Law School*

### STAFF OF INSTRUCTION

William Cabell Van Vleck, A.B., LL.B., S.J.D., *Professor of Law*  
Charles Sager Collier, A.B., LL.B., S.J.D., *Professor of Law*  
Hector Galloway Spaulding, B.S., LL.B., S.J.D., *Professor of Law*  
\*William Thomas Fryer, A.B., LL.B., J.D., *Professor of Law*  
Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*  
Carville Dickinson Benson, A.B., LL.B., S.J.D., *Professor of Law*  
Lloyd Hall Sutton, B.S., LL.B., *Adjunct Professor of Law*  
Spencer Gordon, A.B., LL.B., *Adjunct Professor of Law*  
Conway Peyton Coe, A.B., LL.B., *Adjunct Professor of Law*  
Levi Russell Alden, A.M., LL.B., *Adjunct Professor of Law*  
George Bowdoin Craighill, A.B., LL.B., *Adjunct Professor of Law*  
James Ward Morris, A.B., *Adjunct Professor of Law*  
James Oliver Murdock, Ph.B., LL.B., *Adjunct Professor of Law*  
\*James Forrester Davison, A.B., LL.M., S.J.D., *Associate Professor of Law*  
\*John Albert McIntire, A.B., LL.B., *Associate Professor of Law*  
\*William Randall Compton, M.B.A., LL.B., J.S.D., *Associate Professor of Law*  
\*Chester Charles Ward, B.S., LL.M., *Associate Professor of Law*  
†Clarence Altha Miller, LL.M., *Lecturer in Law*  
James Robert Kirkland, A.B., LL.M., *Lecturer in Law*  
\*James Albert Pike, A.B., LL.B., J.S.D., *Lecturer in Law*  
Archibald King, A.M., LL.B., LL.D., *Lecturer in Law*  
William Leigh Ellis, A.B., LL.M., *Lecturer in Law*  
Justin Lincoln Edgerton, A.B., LL.B., *Lecturer in Law; Clerk of the Moot Court*

\* On war leave 1943-44

† On leave of absence

## THE DEAN'S COUNCIL •

Carville Dickinson Benson  
Charles Sager Collier

Saul Chesterfield Oppenheim  
Hector Galloway Spaulding

## GENERAL INFORMATION

## INTRODUCTORY

The George Washington University Law School, established in 1826, discontinued and reorganized in 1865, is the oldest law school in the District of Columbia. Its course of instruction is planned to fit its graduates for the practice of law in any of the states of the United States or in foreign countries, the law of which is based on the Anglo-American legal system. It is also designed to prepare students for public service as lawyers in the Federal Government or the governments of the states. In 1900 the School took part in the organization of the Association of American Law Schools and it has been a member of the Association since that time. The School is approved by the Council of Legal Education of the American Bar Association.

## ADJUSTMENTS TO THE WAR EMERGENCY

The war emergency has increased the demand for men and women with legal training. To enable students to secure a maximum of legal training in the time available, the Law School's plan of instruction has been modified. The work of the year is organized into three terms known as the fall term, winter term, and summer term. The work undertaken in any one term may be completed by the end of that term. The summer term constitutes a full term of fifteen weeks. It is divided into two sessions so that work undertaken during one session may be completed during that session.

Mid-term examinations will be given in full subjects, that is those given four hours a week during a term. Students who pass these examinations successfully will be given credit for the first half of such subjects in case they are compelled to leave the School without completing the term. Such students will be permitted to register for the second half of such subjects when they return to the School.

The Dean's Council will endeavor in every way consistent with proper educational standards to approve such special arrangements as may be necessary to meet individual problems arising from the demands made upon students by the war. Students who have such problems are re-

• The President of the University and the Dean of the Law School are *ex officio* members of the council.

quested to submit them to the Dean of the Law School for the full and immediate consideration of the Dean's Council.

In the field of public law, made doubly important by the war emergency, courses will be offered in Administrative Law, Constitutional Law, Trade Regulation, Labor Law, International Law, and Government Corporations.

During the fall term a course entitled War Law will be offered. This course, designed to meet more specifically the needs of the war emergency, will consist of two parts: Military Law and War Contracts. Students may register for an individual part.

#### THE LIBRARY

The Law School Library of 23,000 volumes contains the official reports of the decisions of the courts or last resort of all the states prior to the National Reporter System and of fourteen states complete to date; the National Reporter System, complete; the reports of the United States Supreme Court and lower federal courts, and the reports of federal administrative agencies; Shepard's Citations for the units of the Reporter System; the English Reprint and English Law Reports; the United States Statutes; the United States Code, Annotated, and the Federal Code, Annotated; reasonably complete sets of statutes of all of the states; the English statutes; the principal English and American digests and encyclopedias; collections of special reports and annotated cases; and the leading textbooks, casebooks, and legal periodicals.

The Library is open from 9:00 A.M. to 11:00 P.M. each class day (Saturday, 9:00 A.M. to 6:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday.

#### THE LAW REVIEW

*The George Washington Law Review*, published by the University, is edited by the Faculty and students of the Law School. It is devoted exclusively to state and federal public law. The location of the University in the National Capital, where the primary sources of federal public law may be observed in operation, affords an unexcelled opportunity for specialization in this field.

The *Review* is edited by a faculty editor-in-chief, a faculty board of associate editors, a board of departmental advisory editors, and a board of student editors. The student editors are chosen each year on the basis of scholarship.

#### RESEARCH IN PUBLIC LAW

Washington, the capital of the Nation, furnishes unsurpassed advantages for research in the fields of public law. In it are the offices of the



must complete at least one year of residence in this School and pass twenty-eight credit hours with the required average for the degree.

### GRADES

At the end of each term each student is given a letter grade in each subject completed and a letter grade indicating the average for the term.

Grades are indicated by the letters *A*, excellent; *B*, good; *C*, satisfactory; *D*, poor—below standard for graduation; and *F*, failed.

The grades *A*, *B*, *C*, and *D*, mean that the work has been successfully completed and credit given for the subjects.

*F*, failed, means that no credit will be given. To obtain credit the student must repeat the subject; but a student who has obtained an average of *C* in the work of the academic year and received a grade of *F* in only one subject may take the next regular examination in that subject, and if on such reexamination he obtains a passing grade he will be given credit in the subject.

### EXAMINATIONS

Written examinations are held in the middle of the fall and winter terms in subjects given four hours a week and at the end of each term in all subjects. Every student is required to take the regular examinations in the subjects pursued, unless excused by the Dean. A student who, with the consent of the Dean, does not take the examination in a subject with the class in which he is enrolled may take the next regular examination given in the subject.

No special examinations will be given; except that, upon written application to the Dean's Council, showing sufficient cause, a candidate for a degree at a convocation before the next regular examination, if he would be entitled to take a postponed examination, may, at the discretion of the Dean's Council, be given a special examination.

### EXCLUSION AND PROBATION FOR POOR SCHOLARSHIP

A student who during an academic year fails in courses aggregating eight or more credit hours will be excluded. Such a student is not eligible to be registered in the Law School or to attend classes in the next academic year. He may, however, be admitted to the regular examinations in that academic year in those subjects in which he has made a grade below passing, and if he receives a grade of passing in these subjects with an average sufficient to make his general average not less than *C*, he will be reinstated at the beginning of the academic year next succeeding the passing of these examinations.

A student not subject to exclusion under the foregoing rule who at

the end of an academic year has failed to maintain a general average of at least *C*, will be on probation during the next academic year. A student on probation may at the discretion of the Dean be required to reduce his program of study. A student on probation will be excluded at the end of the probationary year unless he has made grades sufficient to give him a general average of at least *C*.

The general average of a student includes all the grades in all the subjects taken while he is in the Law School working for a particular degree. When a subject is repeated or a reexamination is taken, both the first grade and the subsequent grade or grades are counted in the general average.

In special cases in which it is clear that the student's failure does not indicate lack of ability to pursue the study of law, the student who has become subject to exclusion may be readmitted by vote of the Dean's Council of the Law School.

No student is put on probation or excluded because of the work of one term only, or as the result of a program of less than four hours a week during the academic year.

#### CLASSIFICATION OF STUDENTS

Students are divided into classes on the completion of credit hours as follows: first year, one through twenty-eight; second year, twenty-nine through fifty-six; third year, fifty-seven or more.

#### THE DEGREES

##### IN THE PROFESSIONAL COURSE

These degrees are Bachelor of Laws (LL.B.) and Juris Doctor (J.D.).

##### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF LAWS

To be recommended for this degree the student must have completed: (1) a residence period of not less than three academic years on a full-time basis (four years on a part-time basis); (2) eighty credit hours, including the course in Moot Court, with a general average of at least *C*.

*Combined Degrees of Bachelor of Arts and Bachelor of Laws.*—A candidate for the combined degrees of Bachelor of Arts and Bachelor of Laws must: (1) complete three years of satisfactory college work; (2) fulfill the residence requirement of at least thirty credit hours of Columbian College, the School of Government, or the School of Education;

(3) obtain the approval of the Dean of the college concerned at the time of entering the Law School; (4) obtain the recommendation of the Dean of the Law School at the completion of the first year of the Law School, at which time the degree of Bachelor of Arts will be conferred (Professional work taken at another institution will not satisfy the major requirement for the combined degrees.); (5) maintain throughout the entire course the scholarship level required for graduation.

*Combined Degrees of Bachelor of Science in Engineering and Bachelor of Laws.*—The requirements for the combined degrees are stated on page 105.

#### REQUIREMENTS FOR THE DEGREE OF JURIS DOCTOR

This degree is conferred as a recognition of the completion at the George Washington University Law School, with high rank, of the full professional course of not less than three full years (four years on a part-time basis) including experience in research and legal authorship.

To be recommended for this degree the student must have completed: (1) a residence period of not less than three academic years on a full-time basis (four years on a part-time basis) in the Law School; (2) eighty credit hours with a general average of at least *B* including the course in Moot Court and either the course in Comparative Law or one of the graduate seminars; and (3) one year of acceptable service on the board of student editors of *The George Washington Law Review*, election to which is subject to regulations laid down by the Faculty.

#### HONORS

The degree of Bachelor of Laws or of Juris Doctor "with distinction" will be awarded the student who obtains a general average of *A* in the work for the degree.

#### IN THE GRADUATE COURSE

These degrees are Master of Laws (LL.M.) and Doctor of Juridical Science (S.J.D.).

#### REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have completed satisfactorily twenty credit hours of subjects in the graduate curriculum. In individual cases, third- or fourth-year subjects listed in the professional curriculum may be included in the program of study. All



requirements for this degree must be completed in a period not exceeding two academic years.

REQUIREMENTS FOR THE DEGREE OF DOCTOR  
OF JURIDICAL SCIENCE

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have pursued a course of study and research designated by his consultative committee and approved by the Dean's Council of the Law School. At the conclusion of his first year of residence or at such other time as the consultative committee may set, the candidate must pass an oral examination in those fields of study selected by the consultative committee. This examination shall be conducted by the consultative committee and such other members of the faculty as may be assigned by the Dean.

Not later than the date specified in the University calendar the candidate must submit to the Dean one typewritten original and two legible and complete carbon copies of his thesis in its final form and also a typewritten summary of the thesis consisting of not more than 2,500 words. To be acceptable the thesis must, in the opinion of the examining committee, constitute a substantial contribution to the field of law concerned and be suitable for publication. Requirements regarding the form of the thesis are stated on page 39, and additional information will be supplied by the Dean.

The summaries of accepted theses will be printed in a volume forming a number of the *University Bulletin*. The successful candidate for the doctorate is required, before receiving his degree, to pay a fee to cover the expense of printing the summary of his thesis.

A field of study may be selected from the following: Administrative Law, Civil Procedure, Conflict of Laws, Constitutional Law, Evidence, Federal Jurisdiction, Public Corporations, Government Regulation of Business Organization, History of Law, International Law, Labor Law, Municipal Corporations, Trade Regulation, and Trusts.





## THE SCHOOL OF ENGINEERING

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of Engineering*  
Carl Hugo Walther, B.E., M.C.E., *Assistant to the Dean of the School of Engineering*

### STAFF OF INSTRUCTION

Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
\*Frank Artemas Hitchcock, M.S. in C.E., C.E., *Professor of Civil Engineering; Director of War Training Program*  
\*Norman Bruce Ames, M.S., E.E., LL.B., *Professor of Electrical Engineering*  
\*Arthur Frederick Johnson, M.E., Ph.D., *Professor of Mechanical Engineering*  
James Henry Taylor, Ph.D., *Professor of Mathematics*  
Frank Mark Weida, Ph.D., *Professor of Statistics*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Professor of Engineering Administration*  
Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
Benjamin Carpenter Cruickshanks, B.S. in M.E., *Professor of Mechanical Engineering*  
Forest Klaire Harris, Ph.D., *Professorial Lecturer in Electrical Engineering*  
Garbis Keulegan, Ph.D., *Professorial Lecturer in Mechanical Engineering*  
Joseph Young Dreisonstok, Comdr., U. S. Navy, B.S., *Professorial Lecturer on Navigation*  
Newbern Smith, M.S. in E.E., Ph.D., *Professorial Lecturer in Electrical Engineering*  
\*Harold Friend Harding, Ph.D., *Associate Professor of Public Speaking*  
Milton Kent Akers, B.S., E.E., *Associate Professor of Electrical Engineering*  
\*Charles Edward Cook, B.S. in E.E., B.S. in C.E., C.E., *Associate Professor of Civil Engineering*  
Robert Gay Trumbull, B.S. in C.E., *Associate Professor of Mechanical Engineering*  
DeWitt Clinton Knowles, Jr., M.S., *Associate Professor of Chemistry*

\* On war leave 1943-44.

- Maurice Hart Van Horn, Ph.D., *Associate Professor of Chemistry*  
 \*Alfred Ennis, M.S., E.E., D.Eng., *Assistant Professor of Electrical Engineering*  
 \*Howard Henry Koster, M.S. in M.E., *Assistant Professor of Mechanical Engineering*  
 George Strollo, B.S. in C.E., M.C.E., *Assistant Professor of Civil Engineering*  
 Carl Hugo Walther, B.E., M.C.E., *Assistant Professor of Civil Engineering*  
 Wolfram Karl Legner, Ph.D., *Assistant Professor of German*  
 Maurice Harold Irvine, Ph.D., *Assistant Professor of English*  
 Martin Alexander Mason, B.S. in Eng., Dr. Ing., *Lecturer in Mechanical Engineering*  
 Harry Joseph Keegan, B.M.E., *Lecturer in Mechanical Engineering*  
 Rudolph Michel, M.S. in M.E., *Lecturer in Mechanical Engineering*  
 Edward Iannelli, B.E.E., *Lecturer in Electrical Engineering*  
 Paul Guthrie Tomalin, *Lecturer on Naval Architecture*  
 William Hayward, B.S. in C.E., *Associate in Civil Engineering*  
 Carl Harrison Smith, Jr., B.E.E., *Associate in Electrical Engineering*  
 John Brewster Willis, B.M.E., *Associate in Naval Architecture*  
 William Malkin, B.S., *Associate in Civil Engineering*  
 George Edward Sangster, B.E.E., *Associate in Electrical Engineering*  
 Earl Hildreth Lund, B.S. in C.E., C.E., LL.B., *Associate in Civil Engineering*  
 Louis Benjamin Pelzman, Lt. Comdr., U. S. Navy, B.S., *Associate in Civil Engineering*

## THE DEAN'S COUNCIL ‡

1944

Benjamin Carpenter Cruickshanks  
 Frank Artemas Hitchcock

1945

Milton Kent Akers  
 Charles Edward Cook

1946

DeWitt Clinton Knowles, Jr.  
 James Henry Taylor

\* On war leave 1943-44.

‡ Elected by the Faculty. The President of the University and the Dean and Assistant to the Dean of the School of Engineering are members ex officio of the council.

## GENERAL INFORMATION

### INTRODUCTORY

#### HISTORY AND ACCREDITATION

The School of Engineering was organized in 1884 as the Corcoran Scientific School. In 1903 that school was combined with Columbian College in the Department of Arts and Sciences. In 1905 the engineering courses were placed under an administrative organization known as the Washington College of Engineering and in 1909 the name was changed to the College of Engineering and Mechanic Arts. In 1914 the name became the School of Engineering.

Courses leading to the degree of Bachelor of Civil Engineering, Bachelor of Mechanical Engineering, and Bachelor of Electrical Engineering are accredited by the Engineers' Council for Professional Development, the recognized accrediting body of the engineering profession, composed of representatives of the American Society of Civil Engineers, the American Institute of Mining and Metallurgical Engineers, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers, the Society for the Promotion of Engineering Education, the American Institute of Chemical Engineers, and the National Council of State Boards of Engineering Examiners.

#### REGULATIONS

*Students in the School of Engineering are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 10-23, and the University regulations stated on pages 35-40.*

#### THE BACHELOR'S DEGREE

The Bachelor's degrees are: Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering.

The degree of Bachelor of Science in Engineering may be earned with any of the following majors: Business Administration, Chemistry, Economics, Mathematics, Naval Architecture, Physics, or Statistics.

In cooperation with the Law School a six-year curriculum leading to the combined degrees of Bachelor of Science in Engineering and Bachelor of Laws is offered.



## REQUIREMENTS FOR THE DEGREES

## SCHOLARSHIP

The system of grading and computing scholarship is described in detail on pages 35 and 36.

In order to graduate, a student must have a quality-point index of at least 2.00. No student whose quality-point index is below 2.00 will be admitted to the junior year.

*Probation.*—A student must maintain a quality-point index of at least 2.00, or be placed on probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Dean's Council.

*Suspension.*—A student who has a quality-point index below 1.50 or who is placed on probation for a third term, whether successive or after an interval, will be suspended. A student suspended for poor scholarship may apply for readmission after an interval of one calendar year. He must then submit evidence to the Dean's Council that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

## RESIDENCE

One year, or thirty-six credit hours, must be completed in residence. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than thirty weeks. Unless special permission is granted by the Dean to pursue work elsewhere, the work of the senior or final year must be completed in residence.

## CURRICULUM REQUIREMENTS

The satisfactory completion of one of the following curricula of 144 credit hours is required.

FRESHMAN YEAR (FOR ALL ENGINEERING CURRICULA)		Credit Hours
*Chem. 11-12	General Chemistry .....	8
CE 2	Plane Surveying .....	3
Engl. 1-2	Freshman English .....	6
Math. 12	Plane Analytic Geometry .....	4
Math. 19	Differential Calculus .....	4
ME 1	Engineering Survey and Orientation .....	2
ME 3	Mechanical Drawing .....	2
ME 4	Descriptive Geometry .....	2
Phys. Ed.	Physical Education .....	6
†Phys. 6 and 7	General Physics .....	6
Total .....		36

\* The student who has credit for high school chemistry from an accredited high school may be excused from Chemistry 11 upon passing a qualifying examination given at the beginning of each term. He will be permitted to take Chemistry 12 and 21 instead.

† The student who begins physics with Physics 6 or 7 is subject to a qualifying examination. Credit will be given for Physics 5 or Chemistry 11 if not used for entrance requirements.

**Bachelor of Civil Engineering**

**SOPHOMORE YEAR**

Credit  
Hours

CE 21	Analytical Mechanics: Statics.....	2
CE 22	Analytical Mechanics: Dynamics.....	3
CE 23	Higher Surveying.....	4
EE 9-10	Elements of Electrical Engineering.....	6
Geol. 21-22	Physical and Historical Geology.....	6
Math. 20	Integral Calculus.....	3
Phys. Ed.	Physical Education.....	2
Phys. 8	General Physics.....	2
Elective	Economics 1-2 or modern language.....	6
Elective	.....	3
Total.....		37

**JUNIOR YEAR**

Credit  
Hours

CE 25-26	Materials of Construction.....	4
CE 123	Strength of Materials.....	3
CE 130	Hydraulics.....	3
CE 140	Materials and Hydraulics Laboratory.....	2
CE 141	Graphic Statics.....	3
CE 142	Bridge Structures.....	3
CE 164	Highway Engineering.....	3
CE 171	Route Surveying.....	3
CE 172	Railroad Engineering.....	3
CE 187	Contracts and Specifications.....	2
ME 111-112	Thermodynamics.....	6
Spec'd. 1	Principles of Effective Speaking.....	3
Total.....		38

**SENIOR YEAR**

Credit  
Hours

CE 147-48	Structural Design.....	4
CE 149-50	Concrete and Masonry Construction.....	6
CE 151-52	Statistically Indeterminate Structures.....	4
CE 181-82	Water Supply and Sewerage.....	6
CE 189-90	Civil Engineering Practicum.....	2
ME 141-42	Management Problems.....	4
Elective	.....	7
Total.....		33

## Bachelor of Electrical Engineering

## SOPHOMORE YEAR

		Credit Hours
CE 21	Analytical Mechanics: Statics	2
CE 22	Analytical Mechanics: Dynamics	2
EE 9-10	Elements of Electrical Engineering	2
Math. 20	Integral Calculus	2
Math. 132	Differential Equations	2
ME 13-14	Mechanism	4
Phys. Ed.	Physical Education	2
Phys. 8	General Physics	2
Phys. 55	Physical Measurements	2
Elective	Economics 1-2 or modern language	6
Elective		5
Total		18

## JUNIOR YEAR

		Credit Hours
CE 25-26	Materials of Construction	4
CE 123	Strength of Materials	3
CE 136	Hydraulics	3
EE 17-18	Direct-Current Laboratory	4
EE 101	Electric Current	3
EE 102	Alternating-Current Machinery	3
EE 111-12	Electrical Measurements	4
ME 111-12	Thermodynamics	6
Phys. 132	Electronics	3
Speech 1	Principles of Effective Speaking	3
Total		30

## SENIOR YEAR

		Credit Hours
CE 140	Materials and Hydraulics Laboratory	2
EE 103	Alternating-Current Machinery	3
EE 133-34	Alternating-Current Laboratory	4
EE 189-90	Proseminar in Electrical Engineering	2
ME 115	Mechanical Laboratory	2
Elective	Business Administration or Economics	6
Choice	(1) Communications Option, or (2) Power Option	15
Total		34

## 1. Communications Option

		Credit Hours
EE 141-42	Communication Engineering	6
EE 143-44	High-Frequency Communications	3
Elective		

## 2. Power Option

		Credit Hours
EE 125-26	Electric Power Transmission	4
EE 130	Hydro-Electric Engineering	2
EE 137	Electric Traction	2
EE 140	Electric Design	2
Elective		4

## Bachelor of Mechanical Engineering

## SOPHOMORE YEAR

	Credit Hours
CE 21	Analytical Mechanics: Statics..... 2
CE 22	Analytical Mechanics: Dynamics..... 3
EE 9-10	Elements of Electrical Engineering..... 6
Math. 20	Integral Calculus..... 3
ME 7	Machine Drawing..... 2
ME 8	Mechanism Drawing..... 2
ME 13-14	Mechanism..... 4
Phys. Ed.	Physical Education..... 2
Phys. 8	General Physics..... 2
Phys. 55	Physical Measurements..... 2
Elective	Economics 1-2 or modern language..... 6
Elective	Mathematics..... 3
Total.....	37

## JUNIOR YEAR

	Credit Hours
CE 25-26	Materials of Construction..... 4
CE 123	Strength of Materials..... 3
CE 136	Hydraulics..... 3
CE 140	Materials and Hydraulics Laboratory..... 2
CE 141	Graphic Statics..... 3
EE 13-14	Direct- and Alternating-Current..... 4
ME 111-12	Thermodynamics..... 6
ME 141-42	Management Problems..... 4
Speech 1	Principles of Effective Speaking..... 3
Elective	..... 3
Total.....	35

## SENIOR YEAR

	Credit Hours
ME 115-16	Mechanical Laboratory..... 4
ME 126	Method of Manufacture..... 2
ME 127-28	Machine Design..... 4
ME 129-30	Power Plants..... 6
ME 131-32	Heating, Ventilating, Air Conditioning, and Refrigeration..... 4
ME 133	Combustion Engines..... 2
ME 139	Fluid Dynamics..... 3
ME 140	Dynamics of Machinery..... 3
ME 189-90	Proseminar in Mechanical Engineering..... 2
Elective	..... 6
Total.....	36



## Bachelor of Science in Engineering

SOPHOMORE YEAR		Credit Hours
CE 21	Analytical Mechanics: Statics.....	2
CE 22	Analytical Mechanics: Dynamics.....	2
EE 9-10	Elements of Electrical Engineering.....	4
Math. 20	Integral Calculus.....	3
ME 13-14	Mechanism.....	4
Phys. Ed.	Physical Education.....	2
Phys. 8	General Physics.....	3
Elective	Business Administration or Speech.....	1
Elective	English 1-2 or modern language.....	2
Elective	Mathematics.....	3
Elective	Physics.....	3

Total..... 37

JUNIOR YEAR		Credit Hours
CE 25-26	Material of Construction.....	4
CE 123	Strength of Materials.....	3
CE 136	Hydraulics.....	2
CE 140	Materials and Hydraulics Laboratory.....	2
EE 13-14	Direct and Alternating Current Laboratory.....	4
ME 111-12	Thermodynamics.....	14
Elective	.....	3

Total..... 37

SENIOR YEAR		Credit Hours
Bus. Adm. 101-2	Business Organization and Management.....	6
Geol. 21-22	Physical and Historical Geology.....	4
ME 141-42	Management Problems.....	19
Elective	.....	3

Total..... 35

The purpose of the Bachelor of Science in Engineering curriculum is to allow a student who has demonstrated his ability to do better than passing work to center his attention upon a group of subjects in which he has special interest. Options may be elected in Business Administration, Chemistry, Economics, Geology, Mathematics, Naval Architecture, Physics, or Statistics. The student's choice of subjects for the entire junior and senior years must be submitted to the Dean's Council for approval *before* the beginning of the junior year. The student must comply with such requirements as to subjects, schedules, and scholarship as the department concerned may prescribe.

Curricula recommended by the several departments in which options

may be elected are available in the Office of the Dean of the School of Engineering for the guidance of students in arranging their programs. Variations from these curricula may be made to satisfy the needs of the exceptional individual student. However, any variation must be approved in writing by the major department and the Dean's Council.

#### COMBINED BACHELOR OF SCIENCE IN ENGINEERING AND BACHELOR OF LAWS DEGREES

For those students who desire to enter the branches of the legal profession in which a background in engineering is necessary a six-year curriculum is offered, leading to the combined degrees of Bachelor of Science in Engineering and Bachelor of Laws. A candidate for the combined degrees must conform to the residence and scholarship requirements of the School of Engineering throughout the period of preparation for the degree in engineering. His scholarship level for the junior and senior years must be acceptable to both the School of Engineering and the Law School. During the junior and senior years he must complete: (1) the required courses in engineering, (2) the 28 credit hours of courses required in the first year of the Law School, and (3) such electives as he needs to satisfy the 144 credit hour requirement for the degree in engineering. Upon the satisfactory completion of the senior year, the student will then continue his studies in the Law School; upon the satisfactory completion of which the degree of Bachelor of Laws will be conferred.

For detailed information the student should consult the deans of the School of Engineering and the Law School.

#### THE PROFESSIONAL DEGREES

The professional degree of Civil Engineer, Electrical Engineer, or Mechanical Engineer may be conferred upon a graduate of the School of Engineering who has demonstrated his professional ability.

#### REQUIREMENTS FOR THE DEGREES

1. Application may not be made sooner than three years after graduation, and then only if the candidate has had responsible charge of engineering work.
  2. A detailed statement of the candidate's experience, references, the degree sought, and the title of the thesis must be filed with the Dean eight months before the Commencement at which the degree is to be conferred.
- Detailed information concerning the preparation of the thesis may be obtained from the Office of the Dean.



# THE SCHOOL OF PHARMACY

## THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
\*William Paul Briggs, M.S., *Dean of the School of Pharmacy*

## STAFF OF INSTRUCTION

Walter Lynn Cheney, Ph.D., *Professor of Physics*  
\*William Paul Briggs, M.S., *Professor of Pharmacy*  
Alan Thomas Deibert, A.M., *Associate Professor of Romance Languages*  
Paul William Bowman, Ph.D., *Associate Professor of Biology*  
Lawson Edwin Yocum, Ph.D., *Associate Professor of Botany*  
Chester Elwood Leese, Ph.D., *Associate Professor of Physiology*  
Ira Bowers Hansen, Ph.D., *Associate Professor of Zoology*  
Samuel Nathaniel Wrenn, Ph.D., *Associate Professor of Chemistry*  
\*Charles Rudolph Naeser, Ph.D., *Associate Professor of Chemistry*  
Maurice Hart Van Horn, Ph.D., *Associate Professor of Chemistry*  
Lea Gene Gramling, Ph.D., *Assistant Professor of Pharmacology and Pharmacognosy*  
Gretchen Louisa Rogers, Ph.D., *Assistant Professor of German*  
Alden Franklin Roe, Sc.D., *Assistant Professor of Bacteriology*  
\*Charles Watson Bliven, M.S., *Assistant Professor of Pharmaceutical Chemistry*  
Lloyd Walter Hazleton, Ph.D., *Assistant Professor of Pharmacology*  
Asa Vernon Burdine, *Lecturer on Pharmaceutical Economics*  
Leopold Henry Forster, Ph.G., *Instructor in Hospital Pharmacy*  
Helen McDonald, B.S. in Phar., *Instructor in Pharmacy*  
Emily Anna May Godfrey, B.S. in Ed., *Research Associate in Pharmacology*  
Kathleen Darner, A.B., *Research Associate in Pharmacology*

## SEMINAR LECTURERS

James Johnson Durrett, M.S., Phar.G., M.D., *Professorial Lecturer on Drug Control Problems*  
Evander Francis Kelly, Phar.D., Sc.D., *Professorial Lecturer on Pharmaceutical Organizations*  
Carson Peter Frailey, Phar.D., *Professorial Lecturer on Industrial Pharmacy*

\* On war leave 1943-44



- Warren Fales Draper, A.B., M.D., *Professorial Lecturer on Public Health*  
 Frederick John Cullen, Phar.G., M.D., *Professorial Lecturer on Drug Manufacture*  
 James Albert Horton, LL.B., *Professorial Lecturer on Drug Trade Regulations*  
 John Christian Krantz, Jr., Ph.D., *Professorial Lecturer on Pharmaceutical Research*  
 Justin Lawrence Powers, Ph.D., *Professorial Lecturer on Official Drug Standards*  
 George Clemens Ruhland, M.D., *Professorial Lecturer on Hygiene and Sanitation*  
 Robert Lee Swain, Phar.D., LL.B., *Professorial Lecturer on Contemporary Pharmacy*  
 George Potter Larrick, *Professorial Lecturer on Drug Control*

## COMMITTEES\*

## ADVISORY COMMITTEE

- Louis Francis Bradley, *Chairman*  
 Howard Bradbury  
 Malcomb Graeme Gibbs  
 Samuel Louis Hilton  
 Augustus Carrier Taylor

## THE DEAN'S COUNCIL†

- Lea Gene Gramling  
 Lloyd Walter Hazleton  
 Ira Bowers Hansen

## COMMITTEE ON SCHOLARSHIP

- Paul William Bowman, *Chairman*  
 Lawson Edwin Yocum  
 Samuel Nathaniel Wrenn

## GENERAL INFORMATION

## INTRODUCTORY

In 1867 the foundation for the National College of Pharmacy was laid by the Apothecaries' Association of the District of Columbia. The

\* The President of the University and the Dean of the School of Pharmacy are members ex officio of all committees.

† Elected by the Faculty.

College was opened in 1872 and continued until 1906, when it became affiliated with The George Washington University.

The School of Pharmacy is accredited by the American Council on Pharmaceutical Education.

The School of Pharmacy is a member of the American Association of Colleges of Pharmacy.

Washington offers many opportunities for the study of pharmacy. Not only are the facilities of government laboratories and libraries open to the student, but the School of Pharmacy is located only a few blocks from the American Institute of Pharmacy building, in which has been established a pharmaceutical museum and library, and research laboratories which have brought to Washington the outstanding men of the profession.

#### REGULATIONS

*Students in the School of Pharmacy are subject to and are expected to familiarize themselves with the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES as stated on pages 10-23, and the University regulations stated on pages 35-40.*

#### AMOUNT OF WORK

Normal work for any year is that outlined under the head of "Curriculum Requirements", below. A student who wishes to take more than the normal amount of work may do so only with the permission of the Committee on Scholarship, the members of which are guided in their decision by his scholastic record and the extent to which he is employed. A student on probation is limited in the amount of work he may carry.

#### ATTENDANCE

Except by special permission of the instructor, credit will not be given for any course if absences, including both lecture and laboratory, exceed in number for each term the hours of credit for the term.

Absence consists of being away from a lecture or a laboratory, entering after the lecture or laboratory has begun, or leaving before either is dismissed.

#### EXAMINATIONS BEFORE STATE BOARDS OF PHARMACY

To be eligible for examination before most state boards of pharmacy the applicant is required to present satisfactory evidence of college graduation and in addition must have had from one to four years of practical

experience in a pharmacy where prescriptions are compounded. The student is not encouraged to undertake professional work while attempting a full course of study. A student who maintains a quality-point index of 2.00 or higher, may be granted permission by the Dean to acquire a limited amount of this professional experience by working in a pharmacy while carrying a full schedule. A student who falls below a quality-point index of 2.00 will be required to reduce his academic load, or to limit his professional-experience time to less than twenty-four hours a week.

## THE DEGREE OF BACHELOR OF SCIENCE IN PHARMACY

Upon the satisfactory completion of the requirements of the School of Pharmacy, the degree of Bachelor of Science in Pharmacy is conferred.

### REQUIREMENTS FOR THE DEGREE

#### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 35 and 36.

In order to graduate, a student must have a general quality-point index of at least 2.00. In addition, he must have a quality-point index of at least 2.50 in all pharmacy courses.

*Probation.*—A student must maintain a quality-point index of at least 2.00, or be placed on probation where he will remain as long as he fails to attain this index.

*Suspension.*—A student who has a quality-point index below 1.00 or who is placed on probation for a third term, whether successive or after an interval, will be suspended. A student who receives a grade of *E* or *F* in two courses in any one term will be suspended.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence to the Dean of the School of Pharmacy that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

The foregoing scholarship rules are applied to a student with a limited schedule only when he has undertaken a minimum of fifteen credit hours.

#### CURRICULUM

The laboratory method of teaching is used. Recitation classes are held in connection with each course in order to provide systematic drill in the subjects.

The curriculum requirements include at least 130 credit hours. The following curricula lead to the degree of Bachelor of Science in Pharmacy

# The School of Pharmacy

111

## Freshman and Sophomore Years

Courses	Lab. hrs.	Lab. hrs.	Credit hrs.	Clock hrs.
Courses in the Junior College (see page 52 and table facing page 57).....	702	990	64	1692

## Junior Year: Fall Term

Chemistry 21.....	36	108	4	144
Pharmacy 105.....	36	.....	2	36
Pharmacy 109.....	36	54	3	90
*Physics 6.....	36	36	3	72
Physiology 115.....	54	.....	3	54
Physiology 117.....	.....	54	1	54
Total.....	198	252	16	450

## Junior Year: Winter Term

Bacteriology 112.....	54	72	4	126
Pharmacy 112.....	36	108	4	144
Pharmacy 106.....	36	.....	2	36
Pharmacy 118.....	18	.....	1	18
Pharmacy 110.....	36	54	3	90
Elective.....	54	.....	3	54
Total.....	234	234	17	468

## Senior Year: Fall Term

‡Biochemistry 221.....	36	72	4	108
Pharmacy 113.....	36	108	4	144
Pharmacy 105.....	64	.....	3	64
Chemistry 228.....	36	108	4	144
Pharmacy 187.....	18	.....	1	18
Total.....	190	288	16	478

\* Physics 7 may be substituted.

‡ With permission of the Dean, Biochemistry 221-22 may be replaced by other courses, for purposes of specialization.



## Senior Year: Winter Term

* Biochemistry 222.....	36	72	4	108
Pharmacy 166.....	36	54	3	90
Pharmacy 174.....	36	108	4	144
Pharmacy 175.....	18		1	18
Pharmacy 178.....	36		2	36
Pharmacy 188.....	18		1	18
Pharmacy 192.....				
Elective.....	18	54	2	72
Total.....	198	288	17	480
Grand total.....	1522	2052	130	3574

\* With permission of the Dean, Biochemistry 221-22 may be replaced by other courses, for purposes of specialization.

## THE SCHOOL OF EDUCATION

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
James Harold Fox, A.M., Ed.D., *Dean of the School of Education*

### STAFF OF INSTRUCTION

\*Henry Grattan Doyle, A.M., *Professor of Romance Languages*  
William Cullen French, Ph.D., *Professor of Education*  
Willard Hayes Yeager, A.M., *Depew Professor of Public Speaking*  
Donnell Brooks Young, Ph.D., *Professor of Zoology*  
Ruth Harriet Atwell, A.M., *Professor of Physical Education for Women*  
Frank Mark Weida, Ph.D., *Professor of Statistics*  
\*Mitchell Dreese, Ph.D., *Professor of Educational Psychology*  
Sidney Barlett Hall, A.M., Ed.D., LL.D., *Professor of Education*  
James Harold Fox, A.M., Ed.D., *Professor of Education*  
Ralph Dale Kennedy, Ph.D., *Professor of Accounting and Business Administration*  
Frank Washington Ballou, Ph.D., *Adjunct Professor of Education*  
Chester Winfield Holmes, Ed.D., *Adjunct Professor of Education*  
Benjamin Franklin Kyker, A.M., *Adjunct Professor of Education*  
William Carson Ryan, Jr., Ph.D., Ed.D., LL.D., *Adjunct Professor of Education*  
Meredith Chester Wilson, B.S., *Adjunct Professor of Education*  
Neils Peter Neilson, Ph.D., *Adjunct Professor of Education*  
Frances Kirkpatrick, A.M., *Associate Professor of Home Economics*  
Courtland Darke Baker, Ph.D., *Associate Professor of English*  
\*Raymond John Seeger, Ph.D., *Associate Professor of Physics*  
Lawson Edwin Yocum, Ph.D., *Associate Professor of Botany*  
\*Wood Gray, Ph.D., *Associate Professor of American History*  
Thelma Hunt, Ph.D., M.D., *Associate Professor of Psychology*  
Carl Douglas Wells, B.D., Ph.D., *Associate Professor of Sociology*  
William Henry Myers, A.B., *Associate Professor of Physical Education for Men*  
Ruth Emma Coyner, Ph.D., *Associate Professor of Education*  
Helen Bennett Lawrence, A.M., *Associate Professor of Physical Education for Women*  
Burnice Herman Jarman, A.M., Ed.D., *Associate Professor of Education*  
Kathryn Mildred Towne, A.M., *Assistant Professor of Home Economics*

\* On war leave 1943-44.

\*Jenny Emsley Turnbull, A.M., *Assistant Professor of Physical Education for Women*

Elizabeth Burtner, A.M., *Assistant Professor of Physical Education for Women*

Jane Frost Hilder, *Lecturer in Education*

Agnes Kerr Tweedie, Ed.M., *Lecturer in Education*

‡Ruth Kincer Webb, A.M., *Lecturer in Education*

‡LuVerne Crabtree Walker, A.M., *Lecturer in Education*

‡Veryl Gladys Schult, A.M., *Lecturer in Education*

\*Charles Norval Cofer, Ph.D., *Instructor in Educational Psychology*

Ruth Hinkle Brunner, B.S., *Instructor in Physical Education for Women*

Margaret Osborn, M.S., *Instructor in Home Economics*

Helen Taylor, A.M., *Associate in Physical Education for Women*

#### CONSULTANTS IN RESEARCH

John Kerr Rose, Ph.D., *Research Associate in Education*

Eugene Davis Owen, Ph.D., *Research Associate in Education*

#### COMMITTEES

##### THE DEAN'S COUNCIL

1944

Frank Mark Weida

Ruth Harriet Atwell

1945

Sidney Bartlett Hall

Lawson Edwin Yocum

1946

Ruth Emma Coyner

Thelma Hunt

#### COMMITTEE ON ADMISSION AND ADVANCED STANDING

##### The Dean of the School, *Chairman*

Harold Griffith Sutton

Frances Kirkpatrick

William Henry Myers

Frank Mark Weida

Burnice Herman Jarman

Ruth Harriet Atwell

#### GENERAL INFORMATION

##### INTRODUCTORY

It is the purpose of the School of Education to prepare teachers, supervisors, and administrators for the higher ranges of educational service

\* On war leave 1943-44.

‡ On leave of absence 1943-44

and to offer opportunities to teachers of experience to extend their education. The School embraces the departments of Education, Physical Education, and Home Economics, and it is affiliated with all the other departments of the University in which the student is likely to elect work. It offers both graduate and undergraduate work.

The schedule of courses is arranged to meet the convenience of both full-time and part-time students. By attending afternoon, Saturday, and summer classes, teachers in the schools of Washington and vicinity may complete all the requirements for a degree without giving up their positions.

In cooperation with the United States Navy, the Department of Home Economics offers a special program in dietetics and related subjects for Navy Nurses. Candidates are selected by the Nursing Corps of the United States Navy.

#### REGULATIONS

*Students in the School of Education are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 10-23, and the University regulations stated on pages 35-40.*

#### AMOUNT OF WORK

A normal program of work for an undergraduate student is sixteen or seventeen credit hours. A student with a quality-point index of 3.00 or higher may, with the Dean's permission, take nineteen hours. More than nineteen hours may not be taken except by special permission of the Committee on Scholarship.

For an employed student ten credit hours constitute a normal program. A student with a quality-point index of 3.00 or higher for the preceding term may be permitted by the Dean to take twelve or thirteen credit hours.

For a graduate student twelve credit hours, exclusive of the thesis, constitute a normal program. An employed student may not take more than nine credit hours.

#### THE BACHELOR'S DEGREES

Upon the satisfactory completion of the undergraduate requirements of the School of Education, the degree of Bachelor of Arts in Education, Bachelor of Science in Home Economics, or Bachelor of Science in Physical Education is conferred.

The program of work of each student must be approved by a Faculty adviser. Since each student's program of work will be defined by his particular needs, it is important that the student have a clear conception



of his major interest in education, and also that he be familiar with the teaching certificate requirements in the locality in which he expects to teach.

#### REQUIREMENTS FOR THE DEGREES

To be recommended for a degree a student must satisfy the admission, residence, scholarship, and curriculum requirements.

##### RESIDENCE

For full details concerning continuous registration, see page 35.

##### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 35 and 36.

In order to graduate, a student must have a quality-point index of at least 2.00.

*Probation.*—An undergraduate student who fails to maintain a quality-point index of at least 2.00 will be placed on probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Committee on Scholarship.

*Suspension.*—An undergraduate student who fails to pass (i.e., who receives a grade of *E* or *F*) in half or more than half of his work, based on a minimum of sixteen credit hours, will be suspended.

A student who has been suspended for poor scholarship may within ten days appeal his case to the Committee on Scholarship through the Dean. If the case appears to be remediable and the student appears likely to improve in his scholarship thereafter, the Committee may readmit him on probation. A student who has been denied readmission on probation may petition the Committee on Scholarship through the Dean for readmission after the lapse of a calendar year. A student who has been suspended twice will not be readmitted.

##### CURRICULUM REQUIREMENTS

In any of the following curricula at least thirty credit hours must consist of courses numbered above 100.

##### Bachelor of Arts in Education

Students admitted with two years of approved college work are granted the degree of Bachelor of Arts in Education upon the satisfactory completion of sixty-six or more credit hours. This work must include:

	Credit Hours
*Education (including Observation and Cadet Teaching).....	18
†Educational Psychology .....	2 or 3
†Educational Sociology .....	2 or 3
Subject-matter field .....	24 or more
Electives .....	6 to 2

To the extent that courses in the foregoing list are offered for admission, the range of electives is increased.

In accordance with the foregoing general pattern of work for the degree, programs of study are available for elementary school teachers with normal school training and for prospective secondary school teachers in the following teaching fields: English; social studies; history and geography; history, civics, and economics; general science and biology; general science and chemistry; general science and physics; general science and mathematics; French; Spanish; German; Latin; secretarial studies; accounting, banking, and business management; and art. Additional information concerning these programs may be obtained by writing to the Dean.

*Normal School Students.*—Students from approved normal schools are granted such advanced standing as their credentials warrant. Their unfinished requirements are determined by the Dean.

*Subject-matter Field.*—Courses elected within the subject-matter field will depend upon the teaching certificate desired. Usually twenty-four to thirty-six credit hours are required. The subject-matter program should be planned in consultation with, and must be approved by, the Faculty adviser in the field selected. Relevant work completed in normal school or junior college may be counted toward the subject-matter requirements with the approval of the Faculty adviser and the Dean.

### Bachelor of Science in Home Economics

The program of work of each student will be planned with the assistance of a Faculty adviser in the Department of Home Economics.

The purpose of the general home-making course is to educate young women for the important responsibility of home-making and to prepare them adequately for modern living.

Since there will be variation in the needs of each student, the general home-making program can be adapted with the assistance of the Faculty adviser to meet any special requirements.

\* The subject-matter field in education will depend largely upon the certificate requirements that the student wishes to meet. Courses listed under the Department of Education at Central Kentucky College, in other Departments, are accepted in meeting the requirements in education. Some certificate requirements for elementary school teachers include as much as 40 credit hours in education.

† Required in addition to eighteen credit hours in education.

## GENERAL HOME-MAKING COURSE

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Home Economics 54.....	3		Home Economics 152.....	3	
Home Economics 71.....	3		Home Economics 171.....	3	
Home Economics 102.....	3		Home Economics 192.....	3	
Home Economics 123.....	3		Home Economics 197-98.....	6	
Physiology 115.....	3		Psychology 125.....	3	
Electives.....	15		Sociology 176.....	3	
			Electives.....	9	
Total.....	30		Total.....	30	

## Bachelor of Science in Physical Education for Men

## DUAL-MAJOR TEACHER'S COURSE

The minimum requirements for this degree are twenty-three credit hours in physical education, nineteen credit hours in education (including Sociology 121), eighteen credit hours in a subject-matter group, and six credit hours of electives, distributed as follows:

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Education 156.....	3		Education 131.....	3	
Education electives.....	4		Education 133-34.....	6	
Physical Education 101.....	2		Physical Education 126.....	3	
Physical Education 103.....	2		Physical Education electives.....	8	
Physical Education 107.....	2		Electives.....	13	
Physical Education 113-14.....	4				
Physical Education 138.....	2		Total.....	33	
Sociology 121.....	3				
Electives.....	11				
Total.....	31				

## SINGLE-MAJOR TEACHER'S COURSE

The minimum requirements for this degree are thirty-one credit hours in physical education, nineteen credit hours in education (including Sociology 121), and sixteen credit hours of electives, distributed as follows:

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Education 156.....	3		Education 131.....	3	
Education electives.....	4		Education 133-34.....	6	
Physical Education 101.....	2		Physical Education 126.....	3	
Physical Education 103.....	2		Physical Education 125.....	3	
Physical Education 107.....	2		Physical Education 126.....	3	
Physical Education 113-14.....	4		Physical Education 145.....	3	
Physical Education 115-16.....	4		Electives.....	13	
Physical Education 117-18.....	4				
Physical Education 138.....	2		Total.....	33	
Sociology 121.....	3				
Electives.....	3				
Total.....	31				



### Bachelor of Science in Physical Education for Women

The minimum requirements for this degree are sixty-six credit hours, distributed as follows:

JUNIOR YEAR		SENIOR YEAR	
	Credit Hours		Credit Hours
Education 150.....	3	Education 181-182.....	6
Physical Education 101.....	2	Physical Education 145.....	3
Physical Education 103.....	2	Physical Education 147-2.....	4
Physical Education 105.....	6	Physical Education 141.....	3
Physical Education 111-12.....	4	Physical Education 142.....	3
Physical Education 132.....	1	Physical Education 143.....	3
Sociology 121.....	3	Physical Education 151.....	2
Subject-matter field or electives.....	12	Subject-matter field or electives.....	9
Total.....	33	Total.....	33

The student desiring to prepare herself to teach another subject in addition to physical education for women may do so by choosing her elective hours from one subject-matter field with the advice of the Dean of the School of Education. Relevant work completed in the Junior College may be counted in this subject-matter field.

### THE DEGREE OF MASTER OF ARTS IN EDUCATION

Upon the satisfactory completion of the graduate requirements of the School of Education, the degree of Master of Arts in Education is conferred. This is a professional degree, designed to prepare the student for some particular type of educational service. The program of studies leading to the degree will be selected by the candidate and his consultative committee from the various related departments of the University to give the student an adequate background in his chosen vocational field. For the prospective high school or junior high school teacher this will ordinarily include study in the subject which he is planning to teach as well as in the field of education.

In accordance with the foregoing general pattern of work, graduate programs of study are available in early childhood education, elementary education in the intermediate grades, elementary school administration, guidance, agricultural education, adult education, and the various teaching fields in secondary education. Programs of work for teachers in-service are differentiated from those for students without teaching experience. Additional information concerning these programs may be obtained by writing to the Dean.

#### ADMISSION TO CANDIDACY

In addition to admission requirements stated on page 16 the applicant for admission to candidacy for the Master's degree must be ac-



cepted by the Committee on Admission and Advanced Standing. The general procedure in meeting this requirement includes scholarship and personality ratings from instructors under whom the candidate has studied, a personal interview with the Dean, and a scholastic-aptitude test.

#### ADVANCED STANDING

Graduate work completed in other accredited institutions of learning may be credited toward the Master's degree, but a minimum of twenty-four credit hours must be completed at The George Washington University.

Advanced courses completed in excess of the requirements for the Bachelor's degree in this University may be credited toward the Master's degree to the extent of twelve credit hours, provided the work fits in with the student's plan of specialization and is approved in writing by the Dean before being undertaken.

Work completed more than three years prior to registration for the Master's degree at this University will be credited only after the candidate has satisfied the department concerned that he is proficient in the subject matter of the courses offered for credit. Such proficiency may be determined by examination or by other means.

#### REQUIREMENTS FOR THE DEGREE

##### RESIDENCE

A candidate must pass in resident study at this University at least two terms, or one term and two six-week summer sessions, or four six-week summer sessions.

##### AMOUNT OF WORK

A student whose previous preparation in his chosen field has been adequate may complete his requirements, including the thesis, by a minimum of thirty credit hours; others are required to do additional work.

##### THE THESIS

The program of studies will be rounded out by a thesis, which will count as six hours of credit toward the degree. It may be of a research, expository, critical, or creative type, and is intended to demonstrate the student's ability to make independent use of the information and training that he has acquired, and to furnish objective evidence of his constructive powers in his chosen field. The thesis subject must be approved in writing by the candidate's adviser and recorded in the Office of the Registrar by the date announced in the University calendar. One typewritten original and three legible and complete carbon copies of the thesis in its final form must be presented to the Dean by the candi-

date not later than the date announced in the University calendar. Requirements regarding the form of the thesis are stated on page 39, and additional information will be supplied by the Dean.

Payment of tuition for the thesis will entitle the candidate, during the academic year of registration, to the advice and direction of the member of the Faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year may be granted without further tuition payment. If the preparation of the thesis extends beyond the two year period, it must be registered for again, and tuition paid on the same basis as for a repeated course.

#### FINAL EXAMINATION

In addition to the course examinations, the candidate must pass a final examination on the thesis and its related fields. This examination may be either written or oral at the discretion of the candidate's Consultative Committee.

If the thesis is submitted more than three years after the course requirements have been completed, a written examination covering the student's complete program of study will also be required.

#### THE DEGREE OF DOCTOR OF EDUCATION

The requirements for the degree of Doctor of Education cannot be stated in credit hours, but they consist in general of at least two full years of work beyond the degree of Master of Arts in Education or the equivalent. The programs of study are designed to prepare students for administrative or supervisory positions, the teaching of education in normal schools or colleges, the teaching of an academic subject in schools, or colleges, or for specialized types of educational service. The work is given a practical rather than a theoretical bent, and emphasizes the mastery and application of subject matter, both in the study requirements and in the thesis. Special emphasis is placed upon the professional success of the candidate.

The candidate's program of study largely depends upon his previous educational background and his professional objective. Opportunities are provided for study leading to the following professional objectives: school superintendent, secondary school principal, supervisor, director of guidance, director of curriculum development, professor of education, and specialist in educational research.

#### QUALIFICATIONS OF THE APPLICANT

The candidate for the degree of Doctor of Education must have completed (1) graduate work in fields prerequisite to his objective, equivalent to that required for the degree of Master of Arts in Education in The

George Washington University, and (2) at least three years of successful educational experience.

#### ADMISSION TO CANDIDACY

To be admitted to candidacy for the degree the applicant must be accepted by the Faculty of the School of Education on the basis of an examination conducted by a committee appointed by the Dean. This examination will usually include the following: (1) a written examination involving problems related to the applicant's background; (2) a scholastic-aptitude test; (3) an oral examination.

#### CONSULTATIVE COMMITTEE

If the applicant is accepted as a candidate, his consultative committee will counsel the candidate and guide his work.

The consultative committee, in cooperation with the candidate, will (1) determine the candidate's fields of study, in each of which the candidate must pass a written examination at least eight months before he presents himself for the degree; (2) formulate a list of course requirements and of readings that will assist him in preparing for these examinations; and (3) designate the tools of investigation that will be needed by the candidate in the prosecution of his study. These tools may include one or more foreign languages, statistical methods, historical criticism, or any others considered essential by the committee. An examination in the tools designated must be passed by the candidate before he takes his comprehensive examination.

#### THE THESIS

After the candidate has satisfied the requirements enumerated in the preceding section, his committee is dissolved, and he is assigned to a member of the Faculty in whose field the topic of his thesis falls. It is the duty of this person to serve as the candidate's adviser on his thesis and in his field of specialization, and to recommend him to the Dean for the final oral examination when, in his judgment, the candidate's thesis is acceptable.

Not later than the date specified in the University calendar the candidate shall submit to the Dean of the School of Education four copies of his thesis—one typewritten original and three legible and complete carbon copies, on official thesis paper—and also a typewritten summary of the thesis consisting of not more than 2,500 words. Requirements regarding the form of the thesis are stated on page 39, and additional information will be supplied by the Dean.

The successful candidate is required, before receiving his degree, to pay a fee to cover the expense of printing the summary of his thesis.



### THE FINAL EXAMINATION

At least three weeks before the degree is to be conferred the candidate must pass an oral examination on his thesis and on his field of specialization before a committee of the Faculty appointed by the Dean, supplemented by two experts from outside the University appointed by the President. This examination is open to the public, and all are privileged to question the candidate. The Dean, or a member of the Faculty designated by him, will preside at this examination.

### THE EDUCATION GUILD

The Education Guild of The George Washington University is a group for advanced study and discussion established in 1935-36 to test methods of greater freedom in preparing for the doctoral examination and of correlating the doctoral work more closely with the candidate's occupation.

Membership, at present restricted to twenty, is subject to invitation, and includes both men and women employed in Washington and the vicinity and known for their leadership in the classroom, in supervision and in administration. Each member is under the guidance of a consultative committee and must satisfy all of the requirements for the degree of Doctor of Education. Attendance upon seminars is advised but is optional, since directed reading and personal conferences may take the place of the more formal seminar.





# THE SCHOOL OF GOVERNMENT

## THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*

—, *Dean of the School of Government*

Warren Reed West, Ph.D., *Assistant Dean of the School of Government*

## STAFF OF INSTRUCTION

John Donaldson, Ph.D., *Professor of Political Economy*

Richard Norman Owens, Ph.D., C.P.A., *Professor of Accounting and Business Administration*

Frank Mark Weida, Ph.D., *Professor of Statistics*

Warren Reed West, Ph.D., *Professor of Political Science*

Harold Griffith Sutton, M.S., *Professor of Finance*

Lowell Ragatz, Ph.D., *Professor of European History*

William Crane Johnstone, Jr., Ph.D., *Professor of Political Science*

\*Mitchell Dreese, Ph.D., *Professor of Educational Psychology*

Alva Curtis Wilgus, Ph.D., *Professor of Hispanic American History*

Merle Irving Protzman, Ph.D., *Professor of Romance Languages*

Ralph Dale Kennedy, Ph.D., *Professor of Accounting and Business Administration*

James Christopher Corliss, A.M., *Adjunct Professor of Inter American Economics*

Arthur Edward Burns, Ph.D., *Adjunct Professor of Economics*

Henry Furness Hubbard, Ph.D., *Adjunct Professor of Psychology*

Wilford Lenfestey White, M.B.A., D.C.S., *Professorial Lecturer on Marketing*

Charles Hyneman, Ph.D., *Professorial Lecturer on Public Administration*

John Albert Tillema, Ph.D., LL.M., S.J.D., *Associate Professor of Political Science*

\*Edward Campion Acheson, Ph.D., *Associate Professor of Finance*

\*John Withrow Brewer, Ph.D., *Associate Professor of International Law*

\*Howard Maxwell Merriman, Ph.D., *Associate Professor of American Diplomatic History*

Donald Stevenson Watson, Ph.D., *Associate Professor of Economics*

\*Stewart Henderson Britt, Ph.D., *Assistant Professor of Psychology*

John Randolph Riggleman, Ph.D., *Lecturer in Statistics*

George Howland Cox, *Lecturer on Hispanic American History*

Orton Wells Boyd, A.M., C.P.A., *Lecturer in Business Administration*

\* On war leave 1943-44

Arlin Rex Johnson, Ph.D., *Lecturer on Accounting*  
 Walter Frederick Crowder, Ph.D., *Lecturer in Statistics*  
 Solomon Kullback, Ph.D., *Lecturer in Statistics*  
 Frank Robert Byrne, C.P.A., M.B.A., LL.M., *Lecturer on Accounting*  
 Francis Colt deWolf, A.B., LL.B., *Lecturer on International Law*  
 Herbert Webster Johnson, M.B.A., Ph.D., *Lecturer in Business Administration*  
 Harry Meredith Kurth, B.S., *Lecturer on Accounting*  
 Robert Carnell Sampson, A.M., *Lecturer on Public Personnel Administration*  
 J. Otis Garber, A.M., *Lecturer on Public Administration*  
 \*Charles Norval Cofer, Ph.D., *Instructor in Educational Psychology*

## COMMITTEES†

## THE DEAN'S COUNCIL§

1944

John Donaldson  
 John Albert Tillema

1945

Frank Mark Weida  
 James Christopher Corliss

1946

Donald Stevenson Watson  
 Arthur Edward Burns

## COMMITTEE ON ADMISSION AND ADVANCED STANDING

The Dean of the School, *Chairman*  
 Harold Griffith Sutton, *Secretary*

Ralph Dale Kennedy  
 Donald Stevenson Watson

Arthur Edward Burns  
 John Albert Tillema

Richard Norman Owens

## GENERAL INFORMATION

## INTRODUCTORY

The George Washington University School of Jurisprudence and Diplomacy existed from 1898 to 1913, when it was discontinued as a separate school. The courses were given, however, in Columbian College until September, 1928, when training in foreign service and governmental theory and administration was reestablished as a separate branch under the School of Government.

It is the purpose of the School to give the student an understanding of

\* On war leave 1941-44.

† The President of the University and the Dean of the School of Government are members ex

§ 1. The Dean of the School of Government is the President of the University.

the responsibilities under the Constitution of the United States in the conduct of public office—domestic and foreign. This can be accomplished not through any single course but through a curriculum which correlates social, economic, political, historical, and psychological studies.

The courses in domestic government train in the theory of and practice in local, state, and national positions. The courses in foreign service train the student for the many opportunities offered in the foreign fields to carry out the ideals for which America stands, not only in governmental work but in the much wider field of foreign trade as conducted by private enterprise in all parts of the world. This training fits the student especially to assist American citizens who have occasion to travel or to do business abroad, to understand their reciprocal rights and duties, and to protect them in these rights without infringing upon the rights of others, as well as to collect and report information concerning commercial conditions and opportunities abroad. The student thus gains an insight into international affairs from both the American and the foreign point of view, with a resultant broader understanding of economic and political problems.

#### REGULATIONS

*Students in the School of Government are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES as stated on pages 10-23, and the University regulations stated on pages 35-40.*

#### AMOUNT OF WORK

A full-time student not on probation may take ordinarily not more than seventeen credit hours. A student employed more than twenty-four hours a week, who is not on probation, may take not more than ten credit hours.

A full-time undergraduate student whose quality-point index is 3.50 or higher may take not more than nineteen credit hours. An undergraduate student employed more than twenty-four hours a week, whose quality-point index is 3.50 or higher, may take up to twelve credit hours.

Exceptions to these rules will require the approval of the Dean.

#### ATTENDANCE

The student is held responsible for all the work of the courses in which he is registered, and all absences must be excused by the instructor in charge before provision is made for him to make up the work missed.

#### CLASSIFICATION OF STUDENTS

A student who holds a Junior Certificate from the Junior College or the equivalent from another accredited institution, and who has regis-



tered his choice of one of the prescribed curricula at the Office of the Registrar, is classed as a *junior*. A student who has completed thirty credit hours in the School of Government is classed as a *senior*. A student who has satisfactorily completed the work for the Bachelor's degree, and who has registered his choice of one of the prescribed fields of study at the Office of the Registrar, is classed as a *master in course*.

#### INDEPENDENT STUDY PLAN

Under the independent study plan a student of demonstrated capacity, with special interest in the subject matter of a course, may be permitted to undertake independent study under the personal direction of an instructor, in accordance with the rules of the division in which the subject falls. Credit under this plan is limited to the specific course-credits as designated in the list of courses of instruction in this CATALOGUE.

#### THE DEGREE OF BACHELOR OF ARTS IN GOVERNMENT

Upon the satisfactory completion of the undergraduate requirements of the School of Government, the degree of Bachelor of Arts in Government, with a designation of the major field of study, is conferred. The major fields are Public Affairs, Foreign Service, Foreign Commerce, Public Administration, Business Administration, Public Finance, Public Accounting, and Business and Government Statistics.

A student who has completed the required Junior College work and thirty hours in the School of Government, with a quality point index of 2.00 or higher, in any of the undergraduate curricula, may be admitted to the Law School, and upon completing the work of the first year in law with an average of C or higher, may upon recommendation of the Dean of the Law School, be granted the degree of Bachelor of Arts in Government. Students who intend to follow this plan must signify their intention in advance with the Dean of the School of Government and all courses must be approved.

#### REQUIREMENTS FOR THE DEGREE

##### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 35 and 36.

In order to graduate, a student must attain the following: (1) a quality-point index in all of his work of at least 2.00, and (2) a quality-point index of at least 2.50 in thirty credit hours, excluding electives in the work of the third and fourth years.

**Probation.**—A student must maintain a quality-point index of at least 2.00, or be placed on probation, where he will remain as long as his quality-point index is below 2.00.

*Suspension.*—A student who has a quality-point index below 1.00 or who is placed on probation for a third term, whether successive or after an interval, will be suspended.

For the purpose of these rules, the summer sessions are considered a term.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence to the Committee on Admission and Advanced Standing that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

A student with a limited schedule is affected by the foregoing scholarship rules only when he has undertaken fifteen credit hours.

#### CURRICULUM REQUIREMENTS

Curriculum requirements for the Bachelor's and Master's degrees are stated on pages 132-35.

#### Examinations for Waiving Curriculum Requirements

A student desiring to omit a required course may take such examination as the department prescribes, and, on passing satisfactorily, he may be relieved of the curriculum requirement in that subject and may qualify for registration in an advanced course. Passing of this examination does not entitle the student to any hours of credit toward the degree. A student desiring to take such examinations should make the request of the Dean.

A fee of \$5 for each examination must be paid at the Office of the Comptroller and the receipt exhibited at the door of room 105, Building D, on September 22 at 2:00 P.M. for the fall term, and on February 1 at 2:00 P.M. for the winter term. Two hours are allowed for the examination. Should a student wish to take more than one examination, arrangements will be made accordingly.

#### THE DEGREE OF MASTER OF ARTS IN GOVERNMENT\*

Upon the satisfactory completion of the graduate requirements of the School of Government, the degree of Master of Arts in Government, with a designation of the major field of study, is conferred. The major fields are Public Affairs, Foreign Service, Foreign Commerce, Public Administration, Business Administration, Public Finance, Public Accounting, and Business and Government Statistics.

\* For the degree of Master of Arts in Public Personnel Administration, see pages 133-36.

**ADMISSION TO CANDIDACY**

A student is formally recognized as a candidate for the Master's degree only when his application for candidacy has been approved by the Dean. Application is made on a form obtainable at the Office of the Registrar.

Before being admitted to candidacy in the curricula in Public Affairs, Foreign Commerce, or Foreign Service, the student must show a reading knowledge (certified by the appropriate language department) of at least one modern foreign language, to be approved by the Dean. Examinations in modern foreign languages will be given on Saturday, October 10, Saturday, February 5, and Saturday, May 6, at 2:00 P.M.

**REQUIREMENTS FOR THE DEGREE**

A minimum of thirty credit hours of work, as outlined in the curricula on pages 132-35, must be completed successfully. Variations from these curricula require the permission of the Dean.

Not more than twelve credit hours of work may be taken in another professional school; and work so taken cannot be counted toward degrees in both schools. No part of the minimum requirement may be taken in any other institution.

A second-group course (numbered 101-200), taken either in the undergraduate or graduate years, may be counted toward the Master's degree only when registration for advanced credit has been approved at the beginning of the course by the Dean and by the officer of instruction, and provided that the student has done such extra work in the course as may be prescribed by the instructor.

Work completed more than three years prior to registration for the Master's degree will be counted only if the candidate successfully passes an examination on the subject matter of the work offered for credit.

In addition to the course examinations, the candidate must pass a comprehensive written examination in his major field. An oral examination on his thesis may also be required.

No work counted toward a Bachelor's degree may be counted toward a Master's degree.

A student working toward the Master's degree and at the same time completing an undergraduate major must attain a quality-point index of 2.50 or higher in the courses undertaken as part of his undergraduate-major program.

A student who expects to continue his studies for the degree of Doctor of Philosophy after receiving the Master's degree is strongly advised to plan his program from the beginning so that work for the lower degree may help to prepare him for the higher.



#### RESIDENCE

No credit is granted for work done in absentia, i.e., without formal instruction, except for the thesis, which may be completed in absentia with the permission of the department concerned.

#### SCHOLARSHIP

A student whose scholarship is unsatisfactory may be suspended by the Dean. Regarding the system of grading, see pages 35 and 36.

#### CURRICULUM REQUIREMENTS

Curriculum requirements for the Bachelor's and Master's degrees are stated on pages 132-35.

#### THE THESIS

The thesis must be registered for not later than the beginning of the final year, unless the professor in charge of the thesis permits registration at the beginning of the final term. The choice of the thesis subject must be approved by the professor in charge and recorded in the Office of the Registrar by the date announced in the University calendar. The typewritten thesis in its final form must have the approval of the professor in charge and must be presented to the Dean by the student not later than the date announced in the University calendar. Requirements in regard to the form of the thesis are stated on page 39, and additional information will be supplied by the Dean.

Payment of tuition for the thesis entitles the candidate, during the academic year of registration, to the advice and direction of the member of the Faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year is granted without further tuition payment. If the preparation of the thesis extends beyond the two-year period, it must be registered for again, and tuition paid on the same basis as for a repeated course.

#### CURRICULUM REQUIREMENTS

For recommendation for graduation the School of Government requires, in addition to the appropriate Junior College work (see page 53 and table facing page 57), a minimum of sixty credit hours during the junior and senior college years, as set forth in one of the following curricula. The junior and senior years of these eight curricula lead to the degree of Bachelor of Arts in Government with a designation of the major field of study; the graduate years as here outlined lead to the degree of Master of Arts (see pages 129 and 130) in the respective fields. Electives as well as other subjects must be approved by the Dean.



## Public Affairs

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Economics	121-22	6	Economics	101	3
Political Science	111	3	Economics	161-62	6
Political Science	121-22	6	Economics	165	3
Psychology	151	3	History	171-72	6
Elective		12	Political Science	117	3
			Political Science	124	3
			Political Science	171	3
			Electives		3
Total		30	Total		30

GRADUATE YEAR		Credit Hours
Political Science	209-10	6
Thesis		6
Electives		18
Total		30

*Suggested electives:*—Economics 102, 166, and 167; History 144, 147, 151-52, and 181-82; Political Science 115, 116, 151-52, and 181; Sociology 145 and 146.

## Foreign Service

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Economics	101	3	Economics	185-86	6
Economics	121-22	6	History	181-82	6
Economics	170	3	Political Science	130	3
Economics	181-82	6	Political Science	171	3
History	144	3	Political Science	181	3
History	145	3	Electives		9
Political Science	127	3			
Electives		3	Total		30
Total		30			

GRADUATE YEAR		Credit Hours
Political Science	281	3
Thesis		6
Electives		21
Total		30

*Suggested electives:*—Economics 102 and 126; History 130, 145, 161-62, and 174; Political Science 130, 192, 193, and 194.

## Foreign Commerce

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Business Administration	121-22	6	Business Administration	174	3
Economics	17	3	Economics	182	3
Political Science	181-82	6	Economics	183	3
History	147	3	Economics	184	3
Statistics	1-1-2	6	History	174	3
Electives		6	Political Science	112	3
Total		30	Political Science	171	3
			Electives		6
			Total		30

GRADUATE YEAR		Credit Hours
Economics	281 and 282	6
Economics	283-84	6
Thesis		6
Electives		12
Total		30

*Suggested electives:*—Economics 1-1, 105, 120, 100, 167, 227, 285-86, and 287-88, History 141-021 Political Science 111, 121-22, 192, 194, and 281.

## Public Administration

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Business Administration	101-2	6	Business Administration	150	3
Economics	121	3	Economics	161-02	6
Political Science	111	3	Economics	105 or 100	3
Political Science	112	3	Political Science	151-52	6
Political Science	1-1-22	6	Political Science	131 or 134	3
Statistics	1-1-2	6	Political Science	143 or 144	3
Electives		3	Electives		6
Total		30	Total		30

GRADUATE YEAR		Credit Hours
Political Science	209-10	6
Thesis		6
Electives		18
Total		30

*Suggested electives:*—Business Administration 121, 100, 165, and 181; Economics 122, 142, 140, 105, 107, and 205-06, Political Science 111, 112, and 116.

**Business Administration**

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Business Administration 151-2	6	6	Business Administration 115X	3	3
Business Administration 151	3	3	Business Administration 128	3	3
Business Administration 155	3	3	Business Administration 171	3	3
Economics 121-22	6	6	Business Administration 181	3	3
Statistics 101-2	6	6	Business Administration 185	3	3
Electives	6	6	Business Administration 186	3	3
Total	30	30	Political Science 127	3	3
			Political Science 128	3	3
			Electives	6	6
			Total	30	30

GRADUATE YEAR		Credit Hours
Thesis	6	6
Electives	24	24
Total	30	30

*Suggested electives:*—Business Administration 118, 121, 127, 145, 151-52, and 172; Economics 101, 105, 161-62, and 165; Statistics 108.

**Business and Government Statistics**

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Business Administration 101-2	6	6	Business Administration 155	3	3
Economics 121	3	3	Economics 161	3	3
Economics 141	3	3	Economics 161-62	3	3
Statistics 111-2	6	6	Statistics 107	3	3
Statistics 125	3	3	Statistics 108	3	3
Statistics 136	3	3	Statistics 109-10	6	6
Electives	6	6	Statistics 117	3	3
Total	30	30	Electives	3	3
			Total	40	40

GRADUATE YEAR		Credit Hours
Statistics 111	3	3
Statistics 112	3	3
Statistics 205-06	6	6
Statistics 209-300 (Thesis)	6	6
Elective	12	12
Total	30	30

*Suggested electives:*—Economics 105 and 122; Statistics 153 and 157-58

## Public Finance

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Business Administration	151-52	6	Business Administration	115X	3
Economics	121-22	6	Business Administration	155	3
Political Science	127	3	Business Administration	159	3
Political Science	128	3	Business Administration	121	3
Political Science	151-52	6	Economics	145	3
Electives		6	Economics	141-42	6
			Political Science	121-22	6
			Electives		3
Total		30	Total		30

GRADUATE YEAR		Credit Hours
Economics	225	3
Thesis		6
Electives		21
Total		30

*Suggested elective* —Business Administration 118, 127, 128, and 181; Economics 115 and 221

## Public Accounting

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Business Administration	152	3	Business Administration	115X	3
Business Administration	145	3	Business Administration	159	3
Business Administration	151-52	6	Business Administration	161	3
Political Science	155	3	Business Administration	171, 2, 175	3
Political Science	127	3	Business Administration	111, 2, 178	3
Political Science	128	3	Business Administration	181	3
Political Science	129	3	Economics	121-22	6
Electives		6	Electives		6
Total		30	Total		30

GRADUATE YEAR		Credit Hours
Business Administration	251-52	6
Thesis		6
Electives		18
Total		30

*Suggested electives* —Business Administration 181-2, 118, 121, 171, and 172; Economics 111, 115, 161-62, and 175; Statistics 101-2, 115, and 106.

## THE DEGREE OF MASTER OF ARTS IN PUBLIC PERSONNEL ADMINISTRATION

The degree of Master of Arts in Public Personnel Administration is a professional degree designed to provide the necessary pre-entry training



for personnel work. The requirements for the degree cannot be stated definitely in terms of credit hours, although a minimum of thirty credit hours including either a thesis (6 credit hours) or field work (6 credit hours) is required. Unless a candidate is already credited with the introductory courses in economics, political science, and psychology prerequisite to admission to second-group courses, he will be required to take these courses without credit toward the Master's degree. Each student's program will be planned in the light of his background and professional objective. A typical program of work is described below. It is assumed that many of these courses will be offered as undergraduate credits and that frequently the program will not exceed thirty credit hours. Students qualified by experience or independent study may satisfy some of these requirements by examination without taking formal courses, although in no case will less than thirty credit hours meet the requirement for the degree.

#### PROGRAM LEADING TO THE DEGREE OF MASTER OF ARTS IN PUBLIC PERSONNEL ADMINISTRATION

Economics 141 .....	3
Political Science 151 .....	3
Political Science 244 .....	3
Psychology 131 or 131A .....	3
Psychology 143 or 144 .....	3
Psychology 231 .....	3
Statistics 111-2 or 113-4 .....	6
Thesis or Supervised Field Work .....	6*
Electives .....	15*
(To be selected from Political Science 115; Economics 161-72; Psychology 120, 237, and 242; Public Speaking 131-32; Statistics 112 and 134.)	
Total .....	45*

\* If the candidate has had two years of related professional experience, the fifteen hours required electives may be reduced to three hours.

† The total number of hours required may be reduced to as few as 30 provided 15 credit hours of the above work or approved substitute courses are presented as undergraduate credit.

## THE DIVISION OF UNIVERSITY STUDENTS

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Elmer Louis Kayser, Ph.D., *Dean of University Students*

### THE DEAN'S COUNCIL\*

Courtland Darke Baker  
Arthur Edward Burns

Francis Edgar Johnston  
Maurice Hart Van Horn

## GENERAL INFORMATION

### INTRODUCTORY

The Division of University Students was organized in 1930 in order to make the work of the University in its several divisions more fully accessible to mature students and to provide for the offering of special courses to meet special demands as they might arise from time to time. Students registered in this Division are designated "University students", as distinguished from regularly matriculated undergraduate and graduate students.

### REGULATIONS

*Students in the Division of University Students are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 10-23, and the University regulations stated on pages 35-40.*

### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 35 and 36.

*Probation.*—A student must maintain a quality-point index of at least 2.00, or be placed on probation. The case of each student who has a quality-point index between 1.50 and 2.00, however, will be considered individually. A student will remain on probation as long as his quality-point index is below 2.00, or until his probation is removed.

*Suspension.*—A student who has a total quality-point index below 1.50 will be suspended. The case of each student having a total quality point index between 1.35 and 1.50, however, will be considered individually.

A student who receives a grade of *E* or *F* in two courses in any two out of three successive terms will be suspended.

\* The President of the University and the Dean of University Students are members ex-officio of the Council.

A student who falls under probation for the third term, whether successive or after an interval, will be suspended.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

For the purpose of these rules, the summer sessions are considered a term.

*Warnings.*—At stated intervals during the academic year instructors will file in the Office of the Registrar the names of those students who are doing work of D grade or lower. "Warnings" will then be transmitted to the students concerned. Upon request a parent or guardian may receive a copy of a warning notice sent to a student. A warning constitutes notice to the student that he must consult the instructor within a reasonable time and in any case not later than two weeks after receipt of the warning. "Warning periods" are established as follows: fall term—November 1 to 15; winter term—March 15 to 30; summer term—each session, third to fourth week.

The foregoing scholarship rules are applied to a student with a limited schedule only when he has undertaken a minimum of fifteen credit hours.

#### TRANSFER TO REGULAR STATUS

A "University student" may be transferred, at his request, to another college or school of the University only upon complying with the regulations of the specific college or school to which he wishes to transfer. The student should familiarize himself with the regulations printed in the University CATALOGUE concerning admission, residence, amount and quality of work. Specifically, he should note that in some cases not more than thirty (30) hours of credit may be transferred from this Division; that at least the last thirty (30) credit hours must be spent in residence in the college or school granting the degree; and that a general quality-point index of 2.00 must be maintained, with an index of 2.50 in the major.

## THE DIVISION OF EXTENSION

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Sidney Bartlett Hall, A.M., Ed.D., LL.D., *Director of Extension*

### GENERAL INFORMATION

The Division of Extension is an integral part of The George Washington University. Its educational program is designed as a means of extending the services and opportunities of university education to people of the District of Columbia, Virginia, West Virginia, and Maryland. The function of the new Division is to coordinate the offerings of the University and to provide the means and facilities for making these offerings available to those who are unable to come to the campus for all of their studies. Special attention will be given to the needs of the various departments of the Federal Government in their efforts to provide opportunities for their employees to improve their efficiency through further study and likewise to offer programs of study for prospective employees. Provisions have been made for two types of courses and services. They are: (1) credit courses that will be conducted in accordance with existing rules and regulations of the University as to content, examinations, hours, credits, and fees, with the exception that the registration fee will be \$5.00 (tuition will be \$8.00 for each credit hour); (2) non-credit courses that will be provided on the same basis as credit courses and in terms of the needs and ability of the University to provide adequately therefor.

Further details may be obtained by writing to the Director of Extension.



3. Annual series of lectures in Spanish for Spanish-speaking people of Washington.
4. Annual Pan American conference for Washington high school students.
5. Annual mid-winter conference on Pan American affairs, given for the public.
6. Weekly broadcast in English to the United States; topics include current Latin American affairs.

## COURSES ON INTER-AMERICAN SUBJECTS

## ECONOMICS

- 185-86 Economic History and Problems of Latin America (3-3)  
 187-88 Economic History and Problems of South America (3-3)  
 190 International Economic Reconstruction (3)  
 191-92 Contemporary Banking, Currency, and Exchange in Latin America (3-3)  
 193-94 Proseminar in Hispanic American Civilization and Culture (3-3)  
 285-86 Public and Private Finance in Latin America (3-3)  
 287-88 Economic Problems of Latin America (3-3)

## HISTORY

- 161-62 Hispanic American Civilization (3-3)  
 167-68 Latin American and Inter American Problems (2-2)  
 281-82 Seminar in the History of the Americas (3-3)

## ROMANCE LANGUAGES

- 1-2 First-year Spanish (3-3)  
 5-6 Second-year Spanish (3-3)  
 109-10 Spanish Conversation and Composition (3-3)  
 111-12 Seminar in the History of the Americas (3-3)  
 125-26 Modern Spanish Literature (3-3)  
 129-30 The Spanish American Novel (3-3)  
 137-38 Spanish American Literature: South America (3-3)  
 139-40 Spanish American Literature: The Caribbean Area (3-3)  
 227-28 Seminar in Spanish American Literature (3-3)  
 1-2 First-year Portuguese (3-3)  
 5-6 Second-year Portuguese (3-3)  
 127-28 Portuguese and Brazilian Literature (2-2)

## THE SUMMER SESSIONS

1943

The George Washington University is responding to the demands of the Government for professionally and technically trained men and women by expanding the educational program of the 1943 summer term into two seven and one-half weeks' sessions. This summer term is the equivalent of the fall or winter term of the academic year and is similarly administered.

Basic courses in the arts and sciences, education, and government are included in the course offerings of the two summer sessions. The professional schools of Medicine, Law, and Engineering offer complete programs which are the equivalent of a full term's work.

By taking advantage of this opportunity for intensive summer study, the student may accomplish the work of a full term. By continuous attendance he may shorten the time required for his degree from four to two and one-half years.

Complete information concerning the summer term is available in the Summer Sessions catalogue and the separate bulletins of the schools of Medicine, Law, and Engineering.



COURSES OF INSTRUCTION





## COURSES OF INSTRUCTION

On the following pages of this CATALOGUE, under the alphabetically arranged names of the departments of instruction, are listed the courses of instruction offered by the University in the summer of 1943 and in the academic year 1943-44. The courses as here listed are subject to some slight change. The University reserves the right to withdraw any course announced.

### HOURS OF INSTRUCTION

Courses of instruction are scheduled in the morning and early afternoon hours for full-time students.

In addition, there are late-afternoon sections of most of the courses of instruction, scheduled from 6:10 to 9:10 P.M. These classes are identical with the morning sections of the corresponding courses, are taught by the same instructors, and carry the same amount of credit. By taking the late-afternoon and summer classes and extending the time of study beyond the customary four years, a student who is able to give only part of his time to college work may complete a regular curriculum and obtain a degree.

### EXPLANATION OF COURSE NUMBERS

In all departments of instruction except Medicine the number which precedes the name of the course indicates the term in which that course is offered. *An odd number indicates that the course is offered in the fall term; an even number, that it is offered in the winter term (in the departments of the School of Engineering, also in the 1943 summer term); and a double number (e.g., 157-58), that it begins in the fall term and continues in the winter term.* For summer term courses, an odd number indicates that the course is offered in the first session; an even number, that it is offered in the second session. The letter "x" following an odd course number (e.g., 21x) indicates that the course, normally offered in the fall term, is given in the winter term. The letter "x" following an even number course (e.g., 22x) indicates that the course, normally offered in the winter term, is given in the fall term.

In the departments of the School of Medicine, first-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third-year courses, from 301 to 400; and fourth-year courses, from 401 to 500.

In the Law School, first year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third-year courses, from 301 to 400; and graduate courses, from 401 to 500.

In all other schools and colleges the following system of numbering is used:

*First-group courses.*—Courses numbered from 1 to 100, are planned for students in the freshman and sophomore years. With the approval of the adviser and the dean, they may also be taken by juniors and seniors. In certain instances, they may be taken by graduate students to make up undergraduate deficiencies or as prerequisite to advanced courses, but they may not be credited toward a higher degree.

*Second-group courses.*—Courses numbered from 101 to 200, are planned for students in the junior and senior years. They may be credited toward higher degrees only when registration for graduate credit has been approved at the beginning of the course by the dean responsible for the graduate work and by the officer of instruction, and when the completion of additional work has been certified by the officer of instruction.

*Third group courses.*—Courses numbered from 201 to 300, are planned primarily for graduate students. They are open, with the approval of the officer of instruction, to qualified seniors; they are not open to Junior College students or other undergraduates.

#### INDICATION OF THE AMOUNT OF CREDIT

The number of credit hours given for the satisfactory completion of a course is in most cases indicated in parentheses after the name of the course. Thus, a year course giving three hours of credit each term is marked (3-3), and a term course giving three hours of credit is marked (3). A credit hour usually consists of the completion of one fifty-minute period of class work or of one laboratory period a week for one term.

A dagger (†) preceding the number of a year course indicates that the course may not be entered in the second term and that credit will not be given until the work of both terms has been completed.

## ANATOMY

Claude Matthews McFall, LL.B., Ph.D., *Professor of Anatomy, Executive Officer*

Ira Rockwood Telford, Ph.D., *Assistant Professor of Anatomy*

Paul Calabrisi, A.M., *Assistant Professor of Anatomy*

101 *General Anatomy* McFall and Staff  
 Instruction in dissection, followed by the careful observation and study of the gross anatomy of the human body. Fifteen hours a week.

103 *Histology and Embryology* The Staff  
 The histological and embryological structure of the tissues and organs of the human body. Fifteen hours a week.

104 *Neuro-Anatomy* The Staff  
 Fifteen hours a week.

203-4 *Research* The Staff  
 Hours and credits to be arranged.



## ART

Norris Ingersoll Crandall, M.Arch., *Professor of Art, Executive Officer*  
 \*Donald Chenoweth Kline, B.Arch., *Associate Professor of Art*

### STAFF IN THE CORCORAN SCHOOL OF ART

Richard Lahey, *Professor of Drawing and Painting, Principal*  
 Eugen Weisz, *Professor of Drawing and Painting, Vice Principal*  
 Peggy Bacon, *Professor of Drawing and Painting*  
 Aurelius Battaglia, *Professor of Drawing and Painting*  
 Heinz Warneke, *Professor of Sculpture and Carving*

*The major in art appreciation.*—Prerequisite: Art 1-2, 11-12, 121-22, 131-32, 141-42, 151-52, and 161-62.

*The major in drawing and painting.*—Prerequisite: Art 11-12, 121-22, and at least forty-two credit hours of drawing and painting. The classes in drawing and painting are held at the Corcoran School of Art.

*The major in art for prospective teachers of art in high schools.*—The minimum requirements of the curriculum, which leads to the degree of Bachelor of Arts in Education, are stated on pages 116 and 117.

### APPRECIATION

#### FIRST GROUP

##### 1-2 *The Artistic Home* (3-3)

The development of the home, home furnishing, and decoration. 1943-44 and alternate years, Tues. and Thurs., 11:10 A.M. to 12:25 P.M. 1944-45 and alternate years, 6:10 to 7:25 P.M.

Crandall

##### †11-12 *Art Criticism* (3-3)

An introduction to the appreciation of the fine arts and to the interpretation of the paintings of the old and modern masters. 1943-44 and alternate years, Tues. and Thurs., 6:10 to 7:25 P.M. 1944-45 and alternate years, 11:10 A.M. to 12:25 P.M.

Crandall

#### SECOND GROUP

##### 121-22 *History of Art* (3-3)

Painting and sculpture: their development from prehistoric and ancient sources to the modern period. Mon., Wed., and Fri., 9:10 A.M. to 10:25 P.M.

Crandall

##### 131-32 *History of American Fine Arts* (3-3)

A survey of architecture, furniture, decoration, sculpture, painting, and folk arts in America from the early colonies to the present. (No. offered in 1943-44.)

\* On war leave 1943-44.



181-82 *Etching*

Credits to be arranged. 1:00 to 3:45 P.M.

Lahey

183-84 *Design and Commercial Art*

Credits to be arranged. (Not offered in 1943-44.)

185-86 *Advanced Commercial Art*

Credits to be arranged. (Not offered in 1943-44.)

## ART EDUCATION

140-41 *Teaching of Art* (3-3)

## BACTERIOLOGY, HYGIENE, AND PREVENTIVE MEDICINE

Leland Wilbur Parr, Ph.D., *Professor of Bacteriology, Executive Officer*  
 Ralph Gregory Beachley, M.D., Dr.P.H., *Adjunct Professor of Public Health Practice*  
 Angus MacIvor Griffin, Ph.D., *Assistant Professor of Bacteriology*  
 Alden Franklin Roe, Sc.D., *Assistant Professor of Bacteriology*

### SEMINAR LECTURERS

Roscoe Roy Spencer, A.B., M.D., *Professorial Lecturer in Hygiene and Preventive Medicine*  
 Charles Armstrong, B.S., M.D., Sc.D., *Professorial Lecturer in Preventive Medicine*  
 Rolla Eugene Dyer, A.B., M.D., *Professorial Lecturer in Preventive Medicine*  
 Royd Ray Sayers, A.M., M.D., *Professorial Lecturer on Industrial Hygiene*  
 Raymond Aloysius Vonderlehr, M.D., *Professorial Lecturer in Preventive Medicine*  
 Sara Elizabeth Branham, Ph.D., M.D., Sc.D., *Professorial Lecturer in Preventive Medicine*  
 Alice Catherine Evans, M.S., M.D., Sc.D., *Professorial Lecturer in Preventive Medicine*  
 Chester Wilson Emmons, Ph.D., *Professorial Lecturer on Medical Mycology*  
 Willard Hull Wright, D.V.M., Ph.D., *Professorial Lecturer in Preventive Medicine*  
 James Stevens Simmons, M.D., Ph.D., Sc.D., *Professorial Lecturer in Preventive Medicine*

#### 112 *General Bacteriology (4)*

Roe

A study of the fundamentals of bacteriology, including industrial and hygienic applications. Several groups of bacteria, yeasts, and molds are studied in the laboratory. Material fee, \$7.50. Tues., Thurs., and Sat., 9:10 A.M. to 12:00 M.

#### 205 *Advanced Bacteriology*

Roe

Prerequisite: Bacteriology 112. Material fee, \$6. Hours and credits to be arranged.



- 209 *Bacteriology, Parasitology, and Immunology* Parr, Griffin  
Bacteriological technique study of micro-organisms and parasites related to medical and hygienic problems. Methods of diagnosis are stressed and immunological procedures and theory fully treated. Eighteen hours a week for ten weeks.
- 210 *Immunology and Serology* Griffin  
Prerequisite: Bacteriology 112 or 209. Hours and credits to be arranged.
- 220 *Fundamentals of Hygiene and Preventive Medicine (2)* Parr and Staff  
An introduction to the study of preventive medicine and hygiene, including all the subject matter suitable for the student of medicine who has not yet had clinical training. Two hours a week.
- 303-4 *Research in Bacteriology* The Staff  
Hours and credits to be arranged.
- 305-6 *Staff Seminar (2-2)* Parr and Staff  
Weekly first term (Parr, Roe). Weekly second term (Parr, Griffin).
- 401-2 *Public Health Practice* Beachley  
The application of the specialty of preventive medicine in health department practice. One hour a week.

## BIOCHEMISTRY

Joseph Hiram Roe, Ph.D., *Professor of Biochemistry, Executive Officer*  
 Arnold Kent Balls, Ph.D., *Adjunct Professor of Enzymology*  
 William Henry Sebrell, Jr., M.D., *Professorial Lecturer on Nutrition*  
 Alan Hisey, Ph.D., *Assistant Professor of Biochemistry*  
 Essie White Cohn, Ph.D., *Visiting Assistant Professor of Biochemistry*  
 \*Oliver John Irish, Ph.D., *Instructor in Biochemistry*  
 Carl Albert Kuether, Ph.D., *Instructor in Biochemistry*

- 113-14 Biochemistry** Roe and Staff  
 Physiological and clinical chemistry for the first year medical student.  
 Tues. and Thurs., 1:00 to 5:00 P.M. Two lectures and two three-  
 hour laboratory period a week.
- 221-22 Biochemistry (4-4)** Hisey  
 Lecture and laboratory course for non-medical students. Prerequisite:  
 Chemistry 152. Material fee, \$12 a term. Mon. and Wed., 9:00 A.M.  
 to 12:00 M.
- 224 Biochemistry of the Enzymes (elective)** Balls  
 Lecture course dealing with the biochemistry of the enzymes and  
 enzyme reactions. Prerequisite: Biochemistry 113 or 221. Mon.,  
 4:45 P.M. One hour a week.
- 225 Biochemical Preparations** The Staff  
 Material fee, \$10. Hours and credits to be arranged.
- 226 Biochemical Laboratory Methods** Roe  
 Material fee, \$10. Hours and credits to be arranged.
- 227-28 Biochemistry Seminar (1-1)** Roe and Staff  
 The current literature in the field of biochemistry, mainly for graduate  
 students, but open to a limited number of specially qualified medical  
 students. Fri., 4:45 P.M.
- 229-30 Research in Biochemistry** Roe and Staff  
 Hours and credits to be arranged.
- 231-32 Nutrition (1-1)** Roe and Staff  
 For graduate students and qualified medical students (elective).  
 Lecture course on the science of nutrition. Prerequisite: Biochemistry  
 114 or 222. Wed., 5:00 P.M.
- 404 Applied Nutrition (1)** Sebrell  
 For senior medical students and graduate students. Lecture course  
 upon dietary requirements, deficiency diseases, and therapeutic diets.  
 Prerequisite: Biochemistry 114 or 222. Tuesday, 8:00 A.M.

\* On war leave 1943-44.

## BIOLOGY\*

Paul William Bowman, Ph.D., *Associate Professor of Biology, Executive Officer*

*Prerequisite:* Physiology, Biology 1-2, Botany 1 and 2, and Zoology 1-2. The student taking biology as a major will be required to demonstrate in the major examination a grasp of the principles and understanding of the following subjects: classification of plants and animals and their evolutionary history; ecology, evolution; heredity; the physical and cultural development of man; the biological problems of the community and the nation; the historical development of biology; and the great biological events of the past and present. Some of this information he will obtain by taking courses offered in these fields and some by reading and observation under the guidance of his adviser. For further details, see the pamphlet on this subject or consult the adviser.

### FIRST GROUP

- 1-2 *Survey in Biology* (3-3) Bowman  
 Scientific study of the plant and animal kingdoms, with emphasis upon the interdependence of living things. Review of work done in evolution, heredity, public health, and conservation. Material fee, \$3.00 a term. Section A: Tues., 9:10 A.M.; section B: Mon. and Wed., 6:10 P.M. Laboratory—section A, Mon., 1:40 to 3:30 P.M.; section B: Wed., 8:10 to 10:00 P.M. Trip†—section A: Wed., 1:40 to 4:00 P.M.

Summer term 1943

- 27 *Introduction to Genetics* (3) Bowman  
 A possible lecture course on the principles of heredity and their application to plant and animal breeding and the betterment of the human race. 1944-45 and alternate years.

### SECOND GROUP

- †107-8 *Evolution* (3-3) Griggs  
 Survey tracing the data which have led to the larger generalizations of the sciences; the derivation and discussion of theories based largely on these data. Prerequisite: one year of college work in biology, botany, geology, or zoology. Mon., Wed., and Fri., 6:10 P.M.
- 115-16 *Principles of Cytology* (3-3) Bowman  
 Study of plant and animal cells based on Sharp's *Introduction to Cytology*, with training in preparation of slides and use of laboratory equipment. Prerequisite: one year of college work in biology, botany, or zoology. Material fee, \$3.75 a term. 1943-44 and alternate years. Tues., 9:10 P.M. Laboratory—Tues., 7:10 to 9:00 P.M., and Thurs., 6:10 to 8:00 P.M.

\* See also departments of Botany and Zoology, pages 148-50 and 158-59.

† Excursions into the outcrops and visits to museums and other places of biological interest.

- 128 *Genetics* (3) Bowman  
A laboratory course with problems and experiments. Prerequisite: Biology 2 or 27, Botany 1, or Zoology 2. Material fee, \$6.00. 1944-45 and alternate years.
- †137-38 *General Physiology* (3-3) Yocum  
The fundamental physiology of protoplasm as applicable to both animals and plants. Prerequisite: Chemistry 12 and one year of college work in biology, botany, or zoology. 1944-45 and alternate years, Mon., Wed., and Fri., 11:10 A.M.
- 199-200 *Proseminar: Biology* (3-3) Bowman  
Individually planned and directed work by means of which majors in biology may learn something of those branches not studied in regular course and may organize and coordinate their knowledge of the field. Hours to be arranged.
- THIRD GROUP
- 201-2 *Seminar: Cytology* (3-3) Bowman  
Hours to be arranged.
- 203-4 *Seminar: Genetics* (3-3) Bowman  
Hours to be arranged.
- 211-12 *Research in Cytology* Bowman  
Hours and credits to be arranged.  
Summer term 1943—Biology 211 (3).
- 213-14 *Research in Genetics* Bowman  
Hours and credits to be arranged.  
Summer term 1943—Biology 213 (3).
- 299-300 *Thesis* (3-3) Bowman



## BOTANY\*

Robert Fiske Griggs, Ph.D., *Professor of Botany, Executive Officer*

‡William Webster Diehl, Ph.D., *Adjunct Professor of Mycology*

Lawson Edwin Yocum, Ph.D., *Associate Professor of Botany*

*Minimum requirements for the major.*—Twenty-four credit hours of botany beyond the introductory courses, with collaterals as recommended in conference.

### FIRST GROUP

- 1 *Structure and Functions of the Flowering Plant§||* (3) Yocum

The typical plant as a working mechanism, with the emphasis on the general biological significance of plant physiology. Material fee, \$4.50. Section A: Tues. and Thurs., 9:10 A.M. Laboratory—Fri. 1:40 to 3:30 P.M. Section B: Tues. and Thurs., 11:10 A.M. Laboratory—Thurs., 1:40 to 3:30 P.M. Section C: Mon. and Wed., 6:10 P.M. Laboratory—Mon., 8:10 to 10:00 P.M.

- 2 *Survey of the Plant Kingdom||* (3) Yocum

Study of the different kinds of plants, with emphasis on the evolution of the plant kingdom; practice in identifying flowering plants. Material fee, \$4.50. Section A: Tues. and Thurs., 9:10 A.M. Laboratory—Fri. 1:40 to 3:30 P.M. Section B: Tues. and Thurs., 11:10 A.M. Laboratory—Thurs., 1:40 to 3:30 P.M. Section C: Mon. and Wed., 6:10 P.M. Laboratory—Mon., 8:10 to 10:00 P.M.

§ See note 1, p. 114

- 5 *Field Botany||* (6) Griggs

Field trip to neighboring localities of botanical interest, with emphasis on the

### SECOND GROUP

- 121 *Grasses* (3) Griggs

The taxonomy, morphology, phylogeny, and economics of the Poaceae; the making of a collection and the determination of a series of representative genera not available in the herbarium. Text: *Herbarium Manual of Grasses*, 1943-44 and alternate years, Mon. 7:10 P.M. Laboratory hours to be arranged.

- 122 *Higher Monocots* (3) Griggs

Survey of Araceae, Pandaceae, Liliaceae, Amaranthaceae, Menispermaceae, and other orders of monocots, with emphasis on evolutionary relationships and determination of a series of representative genera, 1943-44 and alternate years, Mon. 7:10 P.M. Laboratory hours to be arranged.

\* See also the department of Botany and Zoology, pages 165-67 and 168-69.

† The prices of about \$1.00 each.

‡ Before enrolling in any of the Botany 1, early student must obtain from the registrar of the University an enrollment card in a laboratory section.

§ Prerequisite for all second group courses, Botany 1 and 2, or 5.

- 123-24 *Dicots* (3-3) Griggs  
Survey of selected dicotyledonous orders, the selection varying from year to year; practice in making drawings. Text: *Plant, Flowers and Flowering Plants*, 1944-45 and alternate years. Mon., 7-10 P.M. Laboratory—hours to be arranged.
- 131-32 *Mycology* (3-3) Diehl  
(Not offered in 1943-44.)
- 133-34 *Plant Pathology* (3-3) Diehl  
Material fee, \$6.00 a term. (Not offered in 1943-44.)
- 135-36 *Plant Physiology* (3-3) Yocum  
Fall term: mineral and water relations of plants; winter term: organic syntheses and growth. Prerequisite: Chemistry 11-12. Material fee, \$6.00 a term. 1943-44 and alternate years. Tues. and Thurs., 9-11 P.M. Laboratory—Thurs., 7-10 P.M.
- 141-42 *Plant Ecology* (3-3) Griggs  
1943-44 and alternate years. Fri., 7-10 P.M. Laboratory—hours to be arranged.
- 143 *Plant Distribution* (3) Griggs  
Plant distribution, especially in the United States and Canada; historical relationships of eastern America with eastern Asia and Europe in the Southern Hemisphere, and their bearing on biological and geological history. 1944-45 and alternate years. Fri., 7-10 P.M. Laboratory—hours to be arranged.
- 144 *Vegetation of the United States* (3) Griggs  
Seminar on the areas and characteristics of the principal types of vegetation in the United States. 1944-45 and alternate years. Fri., 7-10 P.M. Laboratory—hours to be arranged.

## THIRD GROUP

- 219-20 *Seminar: Morphology* (3-3) The Staff  
(Not offered in 1943-44.)
- 221-22 *Seminar: Taxonomy* (3-3) Griggs  
(Not offered in 1943-44.)
- 235-36 *Seminar: Physiology* (3-3) Yocum  
Subject for 1943-44: Mineral Nutrition of Plants. Wed., 7-10 to 9 P.M.
- 241-42 *Seminar: Ecology* (3-3) Griggs  
(Not offered in 1943-44.)
- 251-52 *Seminar* (3-3) The Staff  
Discussions of current advances in plant science—partly by the staff and advanced students, partly by authorities invited from neighboring laboratories. (Not offered in 1943-44.)
- 261-62 *Research* The Staff  
Hours and credits to be arranged.
- 279-300 *Thesis* (3-3) The Staff

## BUSINESS ADMINISTRATION

Richard Norman Owens, Ph.D., C.P.A., *Professor of Accounting and Business Administration*

Harold Griffith Sutton, M.S., *Professor of Finance*

Ralph Dale Kennedy, Ph.D., *Professor of Accounting and Business Administration, Executive Officer*

Willford Lenfestey White, M.B.A., D.C.S., *Professorial Lecturer on Marketing*

Orton Wells Boyd, A.M., C.P.A., *Lecturer in Business Administration*

Arlin Rex Johnson, Ph.D., *Lecturer on Accounting*

Frank Robert Byrne, C.P.A., M.B.A., I.L.M., *Lecturer on Accounting*

Herbert Webster Johnson, M.B.A., Ph.D., *Lecturer in Business Administration*

Harry Meredith Kurth, B.S., *Lecturer on Accounting*

*Minimum requirements for the major.—See page 134.*

### FIRST GROUP

51-52 *Principles of Accounting* (3-3) Kennedy and Staff  
Rules of debit and credit, underlying principles of accounting records, simple partnership and corporation problems, and the preparation of financial statements. Section A: Tues., Thurs., and Sat., 11:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.; section C: Tues. and Thurs., 6:10 to 7:25 P.M.

Business Administration 51x—same as Business Administration 51, but offered winter term. Mon., Wed., and Fri., 7:10 P.M.

Business Administration 52x—same as Business Administration 52, but offered fall term. Prerequisite: Business Administration 51, or the approval of the instructor. Tues. and Thurs., 6:10 to 7:25 P.M.

Summer Term 1943.

### SECOND GROUP

101-2 *Business Organization and Management* (3-3) Owens  
Promotion of an enterprise and selection of a form of organization, departmentizing and administration. 1943-44 and alternate years, Tues., Thurs., and Sat., 10:10 A.M. 1944-45 and alternate years, Tues. and Thurs., 6:10 to 7:25 P.M.

Summer Term 1943.

115x *Business Finance* (3) Kennedy  
Basic principles involved in the financial policies of business enterprises. Prerequisite: Business Administration 51-52; Economics 1-2. Mon., Wed., and Fri., 9:10 A.M.

Summer Term 1943.

- 118 *Investments* (3) Sutton  
Analysis of factors of investment profit with application to various types of investments; proper selection of investments for various classes of investors; regulation. Prerequisite: Business Administration 115. (Not offered in 1943-44.)
- 121 *Bank Management* (3) Sutton  
Analysis of the lending and investing policies which under various business conditions are best adapted to various bank management. Prerequisite: Economics 121-22. (Not offered in 1943-44.)
- 127 *Business Forecasting* (3) H. W. Johnson  
Forms and factors underlying forecasting of business activity and methods of forecasting and evaluation. Prerequisite: Economics 122. Tues. and Thurs., 6:15 to 7:25 P.M.
- 128 *Principles of Insurance* (3) H. W. Johnson  
A general course in underwriting principles of property, fire, marine, and casualty insurance, and the function of insurance in the economic life of a business or individual. Prerequisite: Economics 122. Tues. and Thurs., 6:15 to 7:25 P.M.
- 145 *Cost Accounting* (3) Owens  
Job order and process systems of cost finding; interrelation of the cost records and the general accounts; standard costs; distribution costs. Prerequisite: Business Administration 51-52. Mon., Wed., and Fri., 7:15 P.M.
- 151-52 *Advanced Accounting* (3-5) Owens  
Corporations and partnerships, valuation, a trial balance, ratios, receivership, and reorganizations, consolidated statements, and other topics. Prerequisite: Business Administration 51-52. Mon., Wed., and Fri., 6:10 P.M.
- 155 *Analysis of Financial Statements* (3) Kennedy  
Technique of analyzing financial statements for the guidance of operating executive, directors, stockholders, and creditors; valuation of balance sheet items; determination and interpretation of ratios. Prerequisite: Business Administration 51-52. Mon., Wed., and Fri., 9:10 A.M.  
Business Administration 155x—same as Business Administration 155 but offered winter term. Mon., Wed., and Fri., 6:10 P.M.
- 159 *Federal Taxation* (3) Boyd  
Tax problems which confront business enterprise in the areas of profit, capital stock, pay roll, and excise taxes. Prerequisite: Business Administration 151. Tues. and Thurs., 7:35 to 8:50 P.M.
- 160 *Governmental Accounting* (3) Kurth  
Accounting problems of federal, state, and local government. Budgetary control; appropriation accounts; encumbrances; fund accounting. Prerequisite: Business Administration 151-52. Tues. and Thurs., 7:35 to 8:50 P.M.



- 165 *Auditing* (3) Owens  
Duties and responsibilities of the auditor; principles and procedures in making audits; arrangement of working papers and the preparation of reports. Prerequisite: Business Administration 151-52. Tues. and Thurs., 6:10 to 7:25 P.M.
- 168 *Accounting Theory and Problems* (3) Owens  
The solution of advanced problems and a discussion of the principles involved. Prerequisite: Business Administration 151-52. Tues. and Thurs., 6:10 to 7:25 P.M.
- 171 *Principles of Marketing* (3) White  
A survey of marketing, giving particular attention to consumption, retailing, wholesaling, and sales management; the entire marketing structure and its relation to the total economy. Prerequisite: Economics 1-2. Tues. and Thurs., 7:35 to 8:50 P.M.
- 172 *Marketing Problems* (3) White  
Marketing principles applied to specific distribution policy and operating problems of retailers, wholesalers, and manufacturers handling consumers' and industrial goods. Prerequisite: Business Administration 171. 1944-45 and alternate years, Tues. and Thurs., 7:35 to 8:50 P.M.
- 174 *Exporting and Importing* (3) White  
Policy and operating questions of foreign marketing—exporting and importing; markets, limitations, and opportunities. Prerequisite: Economics 1-2. 1944-45 and alternate years, Tues. and Thurs., 6:10 to 7:25 P.M.
- 177-78 *Problems in Retailing* (3-3) A. R. Johnson  
Principles and problems in retail merchandising, including market inventory valuation, and expense control; also, service and personnel problems. Admission by permission of the instructor. Mon., 8:10 P.M. (Business Administration 177, not offered in 1943-44)
- 181 *Public Utilities* (3) Kennedy  
Public utility characteristics, organization, management, financial combinations, and accounting; regulation, valuation, and rate-making are stressed. Prerequisite: Economics 1-2. 1943-44 and alternate years, Mon., Wed., and Fri., 6:10 P.M. 1944-45 and alternate years, Tues., Thurs., and Sat., 10:10 A.M.  
Summer term 1943.
- 185 *Principles of Railroad Transportation* (3) Kennedy  
Railroad history, organization, regulations, rate-making theory and practice, accounting, securities, and consolidation. Work of Interstate Commerce Commission stressed. Prerequisite: Economics 1-2. 1943-44 and alternate years, Mon., Wed., and Fri., 7:10 P.M. 1944-45 and alternate years, Tues., Thurs., and Sat., 9:10 A.M.
- 186 *Principles of Motor, Air, and Water Transportation* (3) Kennedy  
History, organization, economics, regulations, and rates of motor, air, and water carriers; coordination of transportation. Prerequisite:

Economics 1-2. 1943-44 and alternate years, Mon., Wed., and Fri.  
7:10 P.M. 1944-45 and alternate years, Tues., Thurs., and Sat.,  
9:10 A.M.

THIRD GROUP

- 251-52 *Seminar in Accounting* (3-3) Owens  
Research in accounting problems. Admission by permission of the  
instructor. 1944-45, Mon., 8:00 P.M.
- 291-92 *Seminar in Business Administration* (3-3) Kennedy  
Admission by permission of the instructor. Tues., 7:35 P.M.
- 299-300 *Thesis* (3-3) The Staff

## CHEMISTRY

Colin MacKenzie Mackall, Ph.D., *Professor of Chemistry*

\*Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*

Ralph Edward Gibson, Ph.D., *Adjunct Professor of Chemistry*

Samuel Nathaniel Wrenn, Ph.D., *Associate Professor of Chemistry*

\*Charles Rudolph Naeser, Ph.D., *Associate Professor of Chemistry*

DeWitt Clinton Knowles, Jr., M.S., *Associate Professor of Chemistry*

Maurice Hart Van Horn, Ph.D., *Associate Professor of Chemistry*

*Acting Executive Officer*

Florence Everett Hooper, Ph.D., *Assistant Professor of Chemistry*

James Irvin Hoffman, Ph.D., *Lecturer in Chemistry*

Howard Wissler Bond, Ph.D., *Lecturer in Chemistry*

\*Robert Corbin Vincent, Ph.D., *Instructor in Chemistry*

Isaac Feldman, B.S., *Instructor in Chemistry*

*The Major*.—Prerequisite: Chemistry 11-12, 21 and 22; Mathematics 10 and 20; Physics 5, 6, 7, and 8. Required: Chemistry 111-12, 122, 151-52, and 201. The work of the junior and senior years must be approved by the Department. The German language is strongly recommended for all majors, and is essential for all students doing graduate work.

*Requirements for the Master's degree*.—In addition to the requirements for the Bachelor's degree: Chemistry 131-32, 211-12, 251-52, 299-300, and the program must include at least four credit hours of laboratory courses. A reading-knowledge examination in French or German (German preferred) must be passed before the second half of the work is started.

*Registration*.—Before completing registration for courses in which there are laboratory sections, each student must obtain from the representative of the Department an assignment to a laboratory section.

### FIRST GROUP

#### †11-12 *General Chemistry* (4-4)

Wrenn, Hooper,  
and Assistants

Material fee:‡ \$9 a term. Section A: Mon. and Wed., 10:10 A.M. section B: Mon. and Wed., 6:10 P.M. Laboratory—section L: Tues. and Thurs., 10:10 A.M. to 1:00 P.M.; section M: Mon. and Wed., 2:10 to 5:00 P.M.; section N: Tues. and Thurs., 2:10 to 5:00 P.M.; section O: Mon. and Wed., 7:10 to 10:00 P.M.; section P: Tues. and Thurs., 7:10 to 10:00 P.M.

Chemistry 11x—same as Chemistry 11, but offered winter term. Section A: Tues. and Thurs., 1:10 P.M.; section B: Tues. and Thurs., 6:10 P.M. Laboratory—section N: Tues. and Thurs., 2:10 to 5:00 P.M.; section P: Tues. and Thurs., 7:10 to 10:00 P.M.

\* On war leave 1943-44.

‡ A breakage deposit of \$10, payable in advance, is required of the student registered for one or more chemistry courses requiring a material fee.

Chemistry 12x—same as Chemistry 12, but offered fall term. Section A: Tues. and Thurs., 1:10 P.M.; section B: Tues. and Thurs., 6:10 P.M. Laboratory—section N: Tues. and Thurs., 2:10 to 5:00 P.M.; section P: Tues. and Thurs., 7:10 to 10:00 P.M.

Summer term 1943 (Hooper).

21 *Qualitative Inorganic Analysis* Knowles, Feldman,  
(4) and Assistants

Theoretical and practical study of methods of separating and identifying the more common cations and anions. Prerequisite: Chemistry 12. Material fee,\* \$9 a term. Section A: Mon. and Wed., 11:10 A.M.; section B: Mon. and Wed., 6:10 P.M. Laboratory—section M: Mon. and Wed., 2:10 to 5:00 P.M.; section P: Tues. and Thurs., 7:10 to 10:00 P.M.

Chemistry 21x—same as Chemistry 21, but offered winter term. Section A: Tues. and Thurs., 1:10 P.M.; section B: Tues. and Thurs., 6:10 P.M. Laboratory—section N: Tues. and Thurs., 2:10 to 5:00 P.M.; section P: Tues. and Thurs., 7:10 to 10:00 P.M.

Summer term 1943 (Van Horn).

22 *Quantitative Inorganic Analysis* Knowles, Feldman,  
(4) and Assistants

The principles of gravimetric and volumetric analysis. Prerequisite: Chemistry 21. Material fee,\* \$12 a term. Section A: Mon. and Wed., 11:10 A.M.; section B: Mon. and Wed., 6:10 P.M. Laboratory—section M: Mon. and Wed., 2:10 to 5:00 P.M.; section O: Mon. and Wed., 7:10 to 10:00 P.M.

Summer term 1943 (Van Horn).

## SECOND GROUP

†111-12 *Physical Chemistry* (4-4) Van Horn

Introduction to theoretical chemistry. Prerequisite: Chemistry 22 and 152; Mathematics 20; Physics 8. Material fee,\* \$9 a term. Mon. and Wed., 6:10 P.M. Laboratory—section N: Tues. and Thurs., 2:10 to 5:00 P.M.; section O: Mon. and Wed., 7:10 to 10:00 P.M.; section P: Tues. and Thurs., 7:10 to 10:00 P.M.

122x *Advanced Quantitative Analysis* (4) Knowles and Assistants

Application of the fundamental principles of analysis to more difficult separations and determinations. Prerequisite: Chemistry 22. Material fee,\* \$12. Thurs., 6:10 P.M. Laboratory—section M: Mon., Wed., and Fri., 2:10 to 5:00 P.M.; section O: Mon., Wed., and Fri., 7:10 to 10:00 P.M.

123 *Qualitative Inorganic Microanalysis* (2) Knowles

The microtechnique of Emich and others applied to qualitative inorganic analysis. Prerequisite: Chemistry 22. Material fee,\* \$6. (Not offered in 1943-44.)

\* A breakage deposit of \$10, payable in advance, is required of the student registered for one or more chemistry courses requiring a material fee.



- †131-32 *Inorganic Chemistry* (2-2) Van Horn  
 Chemistry and its theories from the standpoint of the periodic table, with special emphasis on the more common elements. Prerequisite: Chemistry 152. Preparation of laboratory instruction. Chemistry 111-12. Tues. and Thurs., 6:15 P.M.
- 135-36 *Inorganic Chemistry: Preparations* (2-2) Bond  
 Application of the theories of inorganic chemistry to the synthesis and purification of a selected list of substances. Prerequisite: Chemistry 152. Preparation of laboratory instruction. Chemistry 111-12. Material fee,\* \$12 a term. Laboratory: Mon. and Wed., 7:15 to 10:00 P.M.
- †151-52 *Organic Chemistry* (4-4) Mackall, Wieman, and Assistants  
 Chemistry of the carbon compounds. Prerequisite: Chemistry 12. However, students are normally advised to take Chemistry 21 and 22 before entering this course. Material fee,\* \$2 a term. A. M. Wed. and Fri., 10:15 A.M. to 1:00 P.M.; B. M., Wed. and Fri., 6:15 to 8:15 P.M.; C. M., Wed., 2:15 to 5:00 P.M.; section N, Tues. 2:15 to 5:00 P.M.; section O, Mon., 7:15 to 10:00 P.M.  
 Summer term 1943
- 1553 *Organic Chemistry: Preparations* (2 or 3) Wieman  
 The synthesis of carbon compounds and a study of the fundamental reactions of purification. Prerequisite: Chemistry 22 and 152. Material fee,\* \$12. Hours to be arranged.  
 Summer term 1943
- 156X *Qualitative Organic Analysis* (2) Mackall  
 The identification of pure organic compounds, the separation of mixtures, and the identification of their components. Prerequisite: Chemistry 22 and 152. Material fee,\* \$12. Laboratory: Mon. and Wed., 2:15 to 5:00 P.M.; section O, Mon. and Wed., 7:15 to 10:00 P.M.
- 191X *History of Chemistry* (2) Mackall  
 The development of chemistry, and the biographies of eminent scientists in the science. Prerequisite: Chemistry 22 and 152. Tues. and Thurs., 6:15 P.M.

## THIRD GROUP

- 203 *Chemical Kinetics* (2)  
 The rates of chemical reaction and factors influencing them. Prerequisite: Chemistry 112. (Not offered in 1943-44.)
- 204 *Catalysis* (2)  
 Prerequisite: Chemistry 203. (Not offered in 1943-44.)
- 205 *Surface Chemistry* (2)  
 Prerequisite: Chemistry 112. (Not offered in 1943-44.)

\* A breakage deposit of \$10, payable in advance, is required of the student registering for one or more chemistry courses requiring a material fee.

- 206 *Colloid Chemistry* (2) Gibson  
Prerequisite: Chemistry 252. (Not offered in 1943-44.)
- 211-12 *Advanced Physical Chemistry* (2-2) Gibson  
Development and application of the principles of thermodynamics and the kinetic theory to chemical problems. Prerequisite: Chemistry 112. Mon. and Wed., 7:15 P.M.
- 215-16 *Physical Chemistry of Solids, Liquids, and Solutions* (2-2) Gibson  
215: Solids, liquids, and solutions; thermodynamics.  
216: Thermodynamics and chemical equilibrium. Prerequisite: Chemistry 112. (Not offered in 1943-44.)
- 217-18 *Recent Advances in Physical Chemistry* (2-2) Gibson  
Prerequisite: Chemistry 112. 1944-45 and alternate years.
- \*221-22 *Advanced Quantitative Analysis* (2-2) Hoffman  
The theory of the quantitative estimation of the less familiar elements. Prerequisite: Chemistry 112 and 132. 1943-44 and alternate years, Tues. and Thurs., 8:15 P.M.
- 226 *Quantitative Organic Analysis* (3) Knowles  
Micro and macro methods. Prerequisite: Chemistry 22 and 132; permission of the instructor. Material fee.\* \$2. (Not offered in 1943-44.)
- \*231-32 *Advanced Inorganic Chemistry* (2-2) Hoffman  
The chemistry of the less familiar elements. Prerequisite: Chemistry 132 and 152. 1944-45 and alternate years.
- 251-52 *Advanced Organic Chemistry* (3-3) Wrenn  
An introduction to the literature of organic chemistry, the study of the synthesis, reactions, and properties of organic compounds; the fundamental theories of organic chemistry. Prerequisite: Chemistry 152; permission of instructor or registration. Chemistry 111-12. Open to the senior student with the permission of the instructor.  
Chemistry 252x—same as Chemistry 252, but offered fall term. Mon., Wed., and Fri., 7:15 P.M.  
Summer term 1943—Chemistry 251 (3).
- 253x *Advanced Synthetic Organic Chemistry* (3) Wrenn  
A critical study of the reactions employed in the synthesis of organic compounds. Prerequisite: Chemistry 252. Mon., Wed., and Fri., 7:15 P.M.
- 254 *Stereochemistry* (2) Mackall  
The stereochemistry of organic compounds. Prerequisite: Chemistry 252. 1944-45 and alternate years.
- 255 *Carbohydrates* (2)  
The structure and properties of the carbohydrates. Prerequisite: Chemistry 252. (Not offered in 1943-44.)

\* A book-plate deposit of \$2. payable in advance, is required of the student registered for one or more chemistry courses requiring a material fee.

**256 Polypeptides (2)**

The structure and classification of polypeptides and their derivatives.  
Prerequisite: Chemistry 252. (Not offered in 1943-44.)

**291-92 Seminar (1-1)**

(Not offered in 1943-44.)

The Staff

**297-98 Research**

Hours, credits, and fees to be arranged.

Summer term 1943.

The Staff

**299-300 Thesis (3-3)**

Material fee,\* \$12 a term. Hours to be arranged.

Summer term 1943.

The Staff

\* A breakage deposit of \$10 payable in advance, is required of the student registered for one or more chemistry courses requiring a material fee.

## CIVIL ENGINEERING

- \*Frank Artemas Hitchcock, M.S. in C.E., C.E., *Professor of Civil Engineering; Director of War Training Program*  
 Joseph Young Dreisonstok, Comdr., U. S. Navy, B.S., *Professorial Lecturer on Navigation*  
 \*Charles Edward Cook, B.S. in E.E., B.S. in C.E., C.E., *Associate Professor of Civil Engineering*  
 George Strollo, B.S. in C.E., M.C.E., *Assistant Professor of Civil Engineering*  
 Carl Hugo Walther, B.E., M.C.E., *Assistant Professor of Civil Engineering, Acting Executive Officer*  
 William Hayward, B.S. in C.E., *Associate in Civil Engineering*  
 William Malkin, B.S., *Associate in Civil Engineering*  
 Earl Hildreth Lund, B.S. in C.E., C.E., LL.B., *Associate in Civil Engineering*  
 Louis Benjamin Pelzman, Lt. Comdr., U. S. Navy, B.S., *Associate in Civil Engineering*

Minimum requirements for the major.—See pages 100 and 101.  
 Summer term 1943.—All even-numbered courses will be offered.

### FIRST GROUP

- 2 *Plane Surveying* (3) Hayward, \_\_\_\_\_  
 Principles, methods, and instruments used in surveying; with field work. Prerequisite: Trigonometry. Surveying fee, \$6. Section A: Tues. and Thurs., 12:10 P.M.; section B: Tues. and Thurs., 7:10 P.M. Field work—Sat., 9:10 A.M. and 1:40 P.M.
- 15 *Navigation* (3) Dreisonstok, Pelzman  
 Principles, methods, and instruments used in surface and aerial navigation. Charts, piloting, dead-reckoning, nautical astronomy, position determination. Prerequisite: Trigonometry. Mon., Wed., and Fri. 6:10 P.M.  
 Also offered summer term 1943.
- 17 *Meteorology for Navigation* (2) Malkin  
 Principles and elements of atmospheric behavior; weather forecasting, data, and maps. Prerequisite: Physics 6 and 7.
- 21 *Analytical Mechanics: Statics* (2) Strollo  
 Composition and resolution of forces; axial stresses; centroids; friction. Prerequisite: Physics 6; prerequisite or concurrent registration: Mathematics 20. Section A: Tues. and Thurs., 11:10 A.M.; section B: Tues. and Thurs., 7:10 P.M.

\* On war leave 1943-44.



- 22 *Analytical Mechanics: Dynamics* (3) Strollo  
Kinematics of a particle; kinetics of a body in translation, rotation and plane motion; work and energy; impulse and momentum. Prerequisite: Civil Engineering 21. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.
- 23 *Higher Surveying* (4) Hayward, —  
Elements of geodesy, triangulation, topography, hydrography, and precise and trigonometric leveling, with field work. Prerequisite: Civil Engineering 2. Surveying fee, \$6. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M. Field work—Sat., 9:10 A.M. and 1:40 P.M.
- 25-26 *Materials of Construction* (2-2) Walther  
Nonmetallic materials, with emphasis on cement; metallic materials, with emphasis on iron and steel. Prerequisite or concurrent registration. Chemistry 12. Section A: Tues. and Thurs., 9:10 A.M.; section B: Tues. and Thurs., 6:10 P.M.

## SECOND GROUP

- 123 *Strength of Materials* (3) Strollo  
Tension, compression, shear, and torsion; deflection; combined and working stresses. Prerequisite: Civil Engineering 22. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.
- 136 *Hydraulics* (3) Strollo  
Hydrostatics; flow through pipes and open channels; laminar and turbulent flow. Prerequisite: Civil Engineering 22. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.
- 140 *Materials and Hydraulics Laboratory* (2) Strollo  
Determination of the properties of materials by mechanical tests, and a study of the flow of fluids. Prerequisite: Civil Engineering 123. Prerequisite or concurrent registration: Civil Engineering 26 and 136. Laboratory fee, \$6. Section A: Tues. and Thurs., 1:40 P.M.; section B: Tues. and Thurs., 8:10 P.M.
- 141 *Graphic Statics* (3) Walther  
Fundamental principles; analyses of beams; determination of stresses in roof trusses and framed bents. Prerequisite or concurrent registration: Civil Engineering 123. Drafting-room fee, \$1. Section A: Tues. and Thurs., 11:10 A.M. and Thurs., 1:40 P.M.; section B: Tues. and Thurs., 7:10 P.M. and Tues., 8:10 P.M.
- 142 *Bridge Stresses* (3) Walther  
Determination of stresses in modern types of bridge trusses. Prerequisite: Civil Engineering 141. Drafting-room fee, \$1. Section A: Tues. and Thurs., 11:10 A.M. and Thurs., 1:40 P.M.; section B: Tues. and Thurs., 7:10 P.M. and Tues., 8:10 P.M.
- 147-48 *Structural Design* (2-2) Walther  
Calculations and drawings for the design of steel structures. Prerequisite: Civil Engineering 142. Drafting-room fee, \$3 a term. Tues. and Thurs., 8:10 P.M.

- 149-50 Concrete and Masonry Construction (3-3)** Strollo  
 Plain concrete; general properties and theory of reinforced concrete; foundations and retaining walls. Prerequisite: Civil Engineering 25 and 123. Civil Engineering 149, laboratory fee, \$6; Civil Engineering 150, drafting-room fee, \$1. Tues. and Thurs., 6:10 P.M., and Mon., 8:10 P.M.
- 151-52 Statically Indeterminate Structures (2-2)** Walther  
 A study of such structures as continuous spans, rigid frames, and arches by method of work, slope deflection, and moment distribution. Prerequisite: Civil Engineering 142. Mon. and Fri., 6:10 P.M.
- 164 Highway Engineering (3)**  
 Highway economics, location, construction, and maintenance. Prerequisite or concurrent registration: Civil Engineering 25 and 171. Mon., Wed., and Fri., 6:10 P.M.
- 171 Route Surveying (3)**  
 Curves and earthwork, and methods of location as used on railroads and highways, field work; complete highway location. Prerequisite: Civil Engineering 2. Surveying fee, \$6. Tues. and Thurs., 6:10 P.M. Field work—Sat., 1:40 P.M.
- 172 Railroad Engineering (3)**  
 Track construction and requirements, rolling stock, cost and operation of railroads, with field work. Prerequisite: Civil Engineering 171. Surveying fee, \$6. Tues. and Thurs., 6:10 P.M. Field work—Sat., 1:40 P.M.
- 181-82 Water Supply and Sewerage (3-3)**  
 Collection, storage, purification, and distribution of water; sewerage systems and treatment of sewage. Prerequisite: Civil Engineering 130; Chemistry 12. Mon., Wed., and Fri., 7:10 P.M.
- 187 Contracts and Specifications (2)** Lund  
 Contract principles; preparation of contracts; specifications and methods of studying them; examples of contracts and specifications; practice in analyzing and writing specifications. Tues. and Thurs., 7:10 P.M.
- 189-90 Civil Engineering Proseminar (1-1)** Mason  
 Wed., 8:10 P.M.

## CLASSICAL LANGUAGES AND LITERATURES

\*John Francis Latimer, Ph.D., *Associate Professor of Classical Languages and Literatures*

### LATIN

†1-2 *First-year Latin* (3-3)

Essentials of Latin grammar; reading selections; composition. (Not offered in 1943-44.)

†3-4 *Second-year Latin* (3-3)

Review of grammar; wide variety of reading selections; composition. (Not offered in 1943-44.)

### GREEK

†1-2 *First-year Greek* (3-3)

Essentials of Greek grammar; reading selections; composition. (Not offered in 1943-44.)

†3-4 *Second-year Greek* (3-3)

Review of grammar; wide variety of reading material; composition. (Not offered in 1943-44.)

---

\* On war leave 1943-44.

## DERMATOLOGY AND SYPHILOLOGY

Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology.*  
*Executive Officer*

Russell Joseph Fields, B.S., M.D., *Assistant Clinical Professor of*  
*Dermatology and Syphilology*

George William Creswell, A.B., M.D., *Associate in Dermatology and*  
*Syphilology*

Hayden Kirby-Smith, B.S., M.D., *Associate in Dermatology and Syphi-*  
*lology*

Leon Hugh Warren, A.B., M.D., M.S. in Med., *Clinical Instructor in*  
*Dermatology and Syphilology*

Adolph Rostenberg, Jr., A.B., M.D.C.M., *Clinical Instructor in Derma-*  
*tology and Syphilology*

313-14 *Dermatology and Syphilology* Anderson  
Lectures on diseases of the skin and syphilis. One hour a week.

316 *Neurosyphilis* The Staff  
Lectures, clinical demonstrations, and practical diagnosis and thera-  
peutic procedures. One hour a week for eight weeks.

317-18 *Clinic* The Staff  
Case demonstrations, diagnosis, and treatment of skin diseases and  
syphilis. Three hours a week. Gallinger Hospital.

407-8 *Clinic* Anderson  
Dermatology and syphilology in infants and children. Children's Hos-  
pital. Two hours a week.

409-10 *Clinic* Anderson  
Clinical demonstration, diseases of the skin. One hour a week. Em-  
gency Hospital.

411-12 *Clinic* The Staff  
Clinical demonstration, diseases of the skin, and diagnosis and treat-  
ment of syphilis. One hour a week. University Hospital.

413-14 *Clinic* Creswell  
Diagnosis, laboratory procedures, and treatment of syphilis. Two  
hours a week. Southwest Health Center.



## ECONOMICS

John Donaldson, Ph.D., *Professor of Political Economy*

James Christopher Corliss, A.M., *Adjunct Professor of Inter-American Economics*

Arthur Edward Burns, Ph.D., *Adjunct Professor of Economics*

Gerhard Colm, Dr. rer. pol., *Professorial Lecturer in Economics*

\*Edward Campion Acheson, Ph.D., *Associate Professor of Finance*

Donald Stevenson Watson, Ph.D., *Associate Professor of Economics*  
*Acting Executive Officer*

Don Dougan Humphrey, Ph.D., *Lecturer in Economics*

Peyton Armstrong Kerr, Ph.D., *Lecturer in Economics*

Roland Inwood Robinson, Ph.D., *Visiting Lecturer in Economics*

Hans Philip Neisser, Dr. jur., Dr. rer. pol., *Visiting Lecturer in Economics*

*The major.*—Prerequisite: Economics 1-2. Required: (1) Economics 101 and three additional credit hours in economic theory (courses numbered 100-109); (2) six credit hours in each of three of the four following groups: finance (courses numbered 125-29), labor (courses numbered 140-49), government and economic activity (courses numbered 160-69), and international economics (courses numbered 180-92); (3) fifteen credit hours of second group courses selected from the following departments—Business Administration, History, Philosophy, Political Science, and Statistics; strongly recommended: History 147 and 174, Statistics 101-2.

### FIRST GROUP

#### 1-2 *Introductory Economics*‡ (3-3)

The Staff

Survey of the major economic institutions and economic problems in contemporary society. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.; section C: Tues. and Thurs., 7:35 to 8:50 P.M.

Economics 1x—same as Economics 1, but offered winter term. Mon., Wed., and Fri., 7:10 P.M.

Economics 2x—same as Economics 2, but offered fall term. Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943.

### SECOND GROUP‡

#### 101 *Economic Theory* (3)

Watson, Humphrey

Introduction to formal economic theory; advanced analysis of demand, supply, and price relations. Mon., Wed., and Fri., 7:10 P.M.

Economics 101x—same as Economics 101, but offered winter term. Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943.

\* On war leave 1943-44.

‡ Economics 1-2 is prerequisite to all other courses in economics.

- 102 *Development of Economic Thought* (3) Burns  
Economic doctrines since the mercantilist writers; the history of the major schools of thought; influence of changing problems on theory.  
Summer term 1943.
- 103 *Advanced Economic Theory* (3) Watson  
Analysis of the theory of monopolistic competition and other recent developments in general economic theory. Prerequisite: Economics 101. (Not offered in 1943-44.)
- 105 *Economic Fluctuations: Business Cycles* (3) Neisser  
Analysis of causes; factors in economic instability and economic retardation; survey of recent business cycle theories.  
Summer term 1943.
- 107 *The Level of Employment and Income* (3) Burns  
Intensive study of the theories of Keynes and of other modern economists.  
Summer term 1943.
- 121-22 *Money and Banking* (3-3) Donaldson, Acheson  
Money, bank credit, and prices; commercial and investment banking; banking systems; historical development of banking; government and banking; functions of money and banking. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.
- 123 *Monetary Theory* (3) Acheson  
The development of monetary theory; principal contemporary approaches; theoretical background of recent monetary policy. (Not offered in 1943-44.)
- 125 *Monetary Problems* Neisser  
Survey of monetary developments since the First World War; monetary policies in the 1930's; war finance; post-war monetary reconstruction.  
Summer term 1943.
- 126 *Foreign Exchange and International Finance* (3) Acheson  
Theory and practice of foreign exchanges; the gold standard and international finance during the nineteenth century; war and post-war exchange problems. Prerequisite: Economics 121-22. (Not offered in 1943-44.)
- 141 *Labor Economics* (3)  
Labor problems: wages, hours, and working conditions; growth of labor organizations; types of unions; union tactics and programs. Tues. and Thurs., 6:10 to 7:25 P.M.
- 142 *Government and Labor Problems* (3)  
Labor legislation; labor and the courts; federal regulation of capital-labor relations; the work of federal labor boards. Tues. and Thurs., 6:10 to 7:25 P.M.

- 146 *Economic Security and Social Insurance* (3) Burns  
Economic and social problems of unemployment and destitution; analysis of the federal social security program; survey of the Beveridge and other plans for post-war social security. (Not offered in 1943-44.)
- 161-62 *Public Finance and Taxation* (3-3) Watson  
General survey of government expenditures, sources and methods of taxation, economic effects of expenditures and taxes, and of government debt policies. Tues. and Thurs., 6:10 to 7:25 P.M.
- 165 *Government Control of Economic Activity* (3) Watson  
Changing role of government in promoting and regulating economic activity; types and spheres of control. Mon., Wed., and Fri., 6:10 P.M.
- 166 *Comparative Systems of Economic Reform* (3) Watson  
Critical analysis of the major theories of economic and social reform with special attention to their origins and backgrounds. Mon., Wed., and Fri., 6:10 P.M.
- 167 *Economics of Planning* (3) Watson  
Analytical comparison of economic systems coordinated by market price with those coordinated by central authority. Tues. and Thurs., 7:35 to 8:50 P.M.
- 169 *Economics of War* (3) Donaldson  
The problems of production, price control, and finance in the defense preparation and war economies; post-war problems. Mon. and Wed., 8:15 to 9:25 P.M.
- 170 *Economic Geography* (3) Acheson  
The economics of natural resources: raw materials; staple crops; and location of industry.  
Summer term 1943.
- 171 *Agricultural Economics* (3) Humphrey  
The major economic problems of agriculture; analysis of federal agricultural policies and programs. (Not offered in 1943-44.)
- 181-82 *International Economics* (3-3) Donaldson  
Survey of world economics: basic factors; resource controls; international trade, industrial, financial, and monetary processes; relation to internal economic systems. Mon., Wed., and Fri., 7:10 P.M.
- 183 *Tariffs and Commercial Treaties* (3) Donaldson  
Origins and types of modern foreign commercial policy, in the light of evolving doctrines; forms and economic effects of tariffs and other measures, and of international commercial accords. Mon., Wed., and Fri., 6:10 P.M.
- 184 *The New Foreign Economic Policies* (3) Donaldson  
The new types of foreign trade and exchange controls and agreements; causes, growth, and techniques. Mon., Wed., and Fri., 6:10 P.M.



- 185-86 *Economic History and Problems of South America* (3-3) Corliss

Economic development of South America (excluding Colombia and Venezuela). Particular emphasis on economic developments and problems since the First World War. 1944-45 and alternate years, Tues. and Thurs., 6:10 to 7:25 P.M.

- 187-88 *Economic History and Problems of the Caribbean Area* (3-3) Corliss

Economic development of Colombia, Venezuela, Mexico, and the Central American and West Indian republics. Particular emphasis on economic developments and problems since the First World War. 1943-44 and alternate years, Tues. and Thurs., 7:35 to 8:50 P.M.

- 190 *International Economic Reconstruction* (3) Donaldson

Survey of international economic problems in the post-war period; consideration of proposals for post-war reconstruction. Mon. and Wed., 8:10 to 9:25 P.M.

- 191-92 *Contemporary Banking, Currency, and Exchange in Latin America* (3-3) Corliss

Survey of monetary and banking developments in important Latin American republics since the First World War.

Summer term 1943—Economics 192.

- 193-94 *Proseminar in Hispanic American Civilization and Culture* (3-3) Corliss

Coordination and review course. Open only to candidates majoring in Hispanic American Civilization and Culture. Hours to be arranged.

### THIRD GROUP

- 201-2 *History of Economic Thought* (3-3) Burns

Critical analysis and interpretation of the development and the literature of economic thought; origins and problems of the major types of theory; their relation to present problems and policies. Tues. and Thurs., 6:10 to 7:25 P.M.

- 204 *Contemporary Economic Theory* (3) Watson

Intensive analysis of the recent literature in price theory. Prerequisite: Economics 201-2. (Not offered in 1943-44.)

- 206 *Business Cycles: Theory and Problems* (3) Humphrey

Analysis of several types of current business-cycle theories; the problem of economic stagnation; recent works of Keynes and others. (Not offered in 1943-44.)

- 221 *Currency, Credit, and Banking: Theory and Problems* (3) Watson

Study of efforts to control economic activity through the banking and monetary system, with particular attention to central banking controls. (Not offered in 1943-44.)



- 227 *International Finance* (3) Acheson  
Studies of the monetary history and exchange problems of specific countries. (Not offered in 1943-44.)
- 242 *Labor and Social Economics* (3)  
Analysis of labor problems, with special reference to labor organization; intensive study of federal regulation and participation in capital-labor relations. Thurs., 8:00 P.M.
- 261 *Public Finance* (3) Colm  
Special problems: deficit financing; current tax problems; and federal, state, and local financial relationships. Thurs., 8:00 P.M.
- 265-66 *Government Control and Economic Planning* (3-3) Watson  
Problems of government in relation to business; work of federal agencies in regulation and stimulation of business; economic theory and problems of planning. Mon., 8:10 P.M.
- 281 *Theories of International Economics* (3) Donaldson  
Examination and critique of mercantilism, classical international equilibrium analysis, and other schools of world economic thought. Tues., 8:00 P.M.
- 282 *The Balance of International Payments* (3) Donaldson  
Structure and theories of the balance; money and interrelationships of trade, gold flows, capital movements, etc.; the balance and international economic policy formulation. Tues., 8:00 P.M.
- 283-84 *Research in International Economic Relations* (3-3) Donaldson  
Original investigations, analyses, and seminar discussions of specific problems and concepts in world economics. (Not offered in 1943-44.)
- 285-86 *Public and Private Finance in Latin America* (3-3) Corliss  
Corporate finance, banking, and capital movements in Latin America; fiscal problems; public debt, deficit financing, taxation, public expenditures; foreign-exchange controls and problems. A reading knowledge of Spanish or Portuguese is required. (Not offered in 1943-44.)
- 287-88 *Economic Problems of Latin America* (3-3) Corliss  
Foreign trade and foreign commercial policy; growth of industry and agriculture; government control of economic activity; recent economic trends and problems. Wed., 8:10 P.M.
- 299-300 *Thesis* (3-3) The Staff

## EDUCATION

- William Cullen French, Ph.D., *Professor of Education*  
 Sidney Bartlett Hall, A.M., Ed.D., LL.D., *Professor of Education*  
 James Harold Fox, A.M., Ed.D., *Professor of Education, Executive Officer*  
 Frank Washington Ballou, Ph.D., *Adjunct Professor of Education*  
 Chester Winfield Holmes, Ed.D., *Adjunct Professor of Education*  
 Benjamin Franklin Kyker, A.M., *Adjunct Professor of Education*  
 William Carson Ryan, Jr., Ph.D., Ed.D., LL.D., *Adjunct Professor of Education*  
 Meredith Chester Wilson, B.S., *Adjunct Professor of Education*  
 Neils Peter Neilson, Ph.D., *Adjunct Professor of Education*  
 Ruth Emma Coyner, Ph.D., *Associate Professor of Education*  
 Burnice Herman Jarman, A.M., Ed.D., *Associate Professor of Education*  
 Jane Frost Hilder, *Lecturer in Education*  
 Madaline Kinter Renimlein, Ph.D., *Lecturer in Education*  
 Agnes Kerr Tweedie, A.B., Ed.M., *Lecturer in Education*  
 \*LuVerne Crabtree Walker, A.M., *Lecturer in Education*  
 \*Veryl Gladys Schult, A.M., *Lecturer in Education*

## CONSULTANTS IN RESEARCH

- John Kerr Rose, Ph.D., *Research Associate in Education*  
 Eugene Davis Owen, Ph.D., *Research Associate in Education*  
*Minimum requirements for degrees.—See pages 116-19.*

## SECOND GROUP

- |   |   |
|---|---|
| <p>109 <i>Learning and Teaching</i> (3)<br/>         Psychological bases of teaching, including adolescent growth and development; caring for individual differences; mental hygiene in the classroom. Wed., 7:15 to 9:15 P.M.<br/>         Summer term 1943</p> <p>112 <i>History of American Education</i> (3)<br/>         Thurs., 7:15 to 9:15 P.M.</p> <p>123-24 <i>Reading Problems</i> (3)<br/>         A clinical approach to reading difficulties and classroom reading at school levels. Sat., 9:15 to 11:15 A.M.</p> | <p>Hall</p> <p>French</p> <p>Hilder</p> |
|---|---|

\* On leave of absence 1943-44.

- 130 *The Use of the Community in Teaching* (3) Coyner  
Class will visit nearby places of interest, gather materials, and organize units of work with a view to the enrichment and extension of classroom experiences.  
Summer term 1943.
- 131 *Introduction to Teaching* (3) Coyner  
For students without teaching experience. Construction of units of work; questioning; assignments; discipline; records and reports. Tues. and Thurs., 6:10 to 7:45 P.M.
- 133-34 *Observation and Cadet Teaching\** (2 to 6) Coyner  
Education 134, practice-teaching fee, \$4.50 a credit hour. Hours and credits to be arranged individually.
- 136 *Teaching of English* (3) Tweedie  
Specific methods for meeting the problems of the teacher of secondary school English; survey of recent professional publications in the field. Fri., 7:10 to 9:10 P.M.
- 137 *Teaching of Geography* (3) Coyner  
Viewpoint of modern geography; aims and objectives; organization of materials for work; critical examination of texts and other classroom equipment. (Not offered in 1943-44.)
- 138 *Teaching the Social Studies* (3) Coyner  
War and post-war problems in the teaching of the social studies; aims and methods; classroom and library equipment; evaluation of textbooks; testing.  
Summer term 1943.
- 156 *Secondary Education: The Junior and Senior High School* (3) Jarman  
Development, purpose; relation to elementary education; organization and administration; guidance; program of studies; community relationships. Wed. and Fri., 6:10 to 7:00 P.M.  
Summer term 1943.
- 167 *Teaching Secretarial Training Courses* (3) Veon  
New methods of teaching secretarial courses, including shorthand, typewriting, transcription, secretarial practice, and the fundamentals of business. (Not offered in 1943-44.)
- 168 *Teaching Bookkeeping and Related Skills* (3) Veon  
Methods of teaching commercial arithmetic, general business, and bookkeeping. (Not offered in 1943-44.)
- 173 *Adult Education* (3) Jarman  
Extent and organization; interests, needs, and capacities of adult learners; techniques employed in motivating and directing learning activities; reviews of recent literature. Thurs., 7:10 to 9:10 P.M.  
Summer term 1943.

\* May not be taken for credit by a student registered in Columbian College.

## THIRD GROUP

- 205-6 *The Curriculum* (3-3) French  
Analysis of basic curriculum literature and procedures. The winter term will be organized as a curriculum workshop with lectures, conferences, and group discussions. Thurs., 7:10 to 9:10 P.M.  
Summer term 1943—Education 206 (Hall.)
- 211 *Seminar: Twentieth Century Movements in American Education* (3) French  
Historical backgrounds of twentieth century movements and leaders. Intensive study of problems of special interest. Tues., 7:10 to 9:10 P.M.
- 213-14 *Seminar: Origins of American Education* (3-3) French  
Historical research in American education. Wed., 7:10 to 9:10 P.M.
- 215-16 *Seminar: Great Teachers in American Education* (3-3) French  
A study of great teachers from the Colonial Period to the present. An attempt will be made to find out the qualities and characteristics that have made these teachers great. (Not offered in 1943-44.)
- 217-18 *Contemporary Problems in Education* (3-3) Jarman  
Fall term: designed to help students formulate a personal philosophy of education. Winter term: a study of the forces that shape the policies and offerings of the school. Education 217 Mon., 7:10 to 9:10 P.M. Education 218 Mon., 7:30 to 9:30 P.M.  
Summer term 1943—Education 217(3).
- 221-22 *Seminar: Early Childhood Education* (3-3) Coyner  
Fall term: home backgrounds, nursery school, and kindergarten situations. Winter term: primary grades. (Not offered in 1943-44.)
- 224 *New Developments in Children's Literature* (3) Walker  
(Not offered in 1943-44.)
- 225-26 *Seminar: Elementary Education in the Intermediate Grades* (3-3) Coyner  
A comprehensive study of the major problems of the intermediate grades. Fri., 7:10 to 9:10 P.M.
- 228 *Teaching Materials in the Elementary Grades* (3) Coyner  
Critical examination of texts, visual and auditory aids, and other materials available to elementary school teachers. Laboratory and discussion.  
Summer term 1943.
- 229-30 *Administration and Supervision of Elementary Education* (3-3) Hall  
Problems of elementary school administrators and supervisors. Hours to be arranged.



- 241 *Problems in Secondary School Mathematics (3)* Schult  
For experienced teachers. Discussion of teaching problems in the light of recent publications, current trends, and modern viewpoints. (Not offered in 1943-44.)
- 244 *Seminar: Problems in Secondary School Science (3)* Fox  
For experienced teachers. Selection of problems will be based upon the interests and needs of the students. Hours to be arranged.
- 251 *Principles and Methods in the Senior High School (3)* Jarman  
For students without teaching experience. Emphasis placed on basic principles, current issues and problems, and methods of instruction. (Not offered in 1943-44.)
- 255-56 *Seminar: Secondary Education (3-3)* Fox  
For experienced teachers. A review of recent developments. Tues., 7:10 to 9:10 P.M.
- 259-60 *Administration of Secondary Education (3-3)* Fox  
Management problems, master schedule, public relations. Hours to be arranged.
- 271 *Administration: the Teacher and School Administration (3)* Fox  
For teachers and prospective administrators. Organization of public education—local, state, and federal, administrative problems of concern to teachers; effective human relationships in administration. Wed., 7:10 to 9:10 P.M.
- 272 *Supervision: the Teacher and School Supervision (3)* Fox  
Aims and objectives of supervision in relation to wartime demands; personnel problems; supervisory techniques; evaluation of school efficiency. Wed., 7:10 to 9:10 P.M.  
Summer term 1943.
- 273 *Administration: Organization and Administration of a School System (3)* Hall  
For superintendents and those aspiring to this position. Issues, principles, and problems of the superintendency as conditioned by local circumstances. Prerequisite: Education 271 and 272 or the equivalent. Hours to be arranged.
- 274 *Administration: Management Problems of the Superintendent (3)* Hall  
For superintendents and those aspiring to this position. Business management, the budget, construction of buildings, equipment and supplies, pupil transportation. Prerequisite: Education 273 or the equivalent. Hours to be arranged.
- 275 *Seminar: State School Administration (3)* Hall  
Organization, administration, supervision, instruction, and finance. Prerequisite: Education 271 or the equivalent. Hours to be arranged.

- 276 *Seminar: Public Relations in School Administration* (3) Fox  
Factors influencing public approval and disapproval; social interpretation of the program of public education; public relations agencies. Prerequisite: Education 271 or the equivalent. Hours to be arranged.
- 277 *Supervision of Student Teaching* (3) Coyner  
For critic teachers. Activities through which the student is introduced into teaching; duties and responsibilities of the training supervisor; evaluation of student teaching. (Not offered in 1943-44.)
- 278 *School Law* (3) Remmlein  
Sources and scope of school law; legal rights and responsibilities of teachers, pupils, and taxpayers. Other legal problems of major interest to the group. Prerequisite: Education 271 or the equivalent. Hours to be arranged.
- 279 *Administering a Wartime School Program* (3) Fox  
Use of buildings and equipment; community services rendered by school personnel; student organization in wartime; inservice training of teachers.  
Summer term 1943.
- 281 *Audio-visual Education* (3)  
Selection, organization, and utilization of audio-visual aids; emphasis upon demonstration and practice. Hours to be arranged.
- 283-84 *Research Problems* (3-3) Ballou  
Investigations in public school education. Admission by permission of the instructor. Hours to be arranged.
- 285 *Extra-classroom Activities in Secondary Schools* (3) Fox  
Victory Corps; stamp and bond drives; conservation and salvage activities; cooperative work programs; student self-government; assemblies; school publications; homeroom programs.  
Summer term 1943.
- 287-88 *Clinical Study of Reading Problems* (3-3) Hilder  
For advanced students. Diagnostic work under supervision in the Reading Clinic. Admission by permission of the instructor. Sat. 11:10 A.M. to 1:00 P.M. Individual conferences to be arranged.
- 291 *Education and the Post-war World* (3) Hall  
Evaluation of current educational programs in relation to existing conditions and trends; educational programs necessary to meet post-war conditions.  
Summer term 1943.
- 293-94 *Research* (3-3) The Staff  
Individual research under the guidance of a member of the staff. Program and conferences arranged with an instructor.  
Summer term 1943.
- 297-98 *Thesis* (3-3) Consultative Committee  
Hours to be arranged.  
Summer term 1943.

## CLOSELY RELATED COURSES IN OTHER DEPARTMENTS

- Psychology 22, *Introduction to Educational Psychology*  
 Psychology 116, *Clinical Psychology*  
 Psychology 121, *Educational Psychology*  
 Psychology 125, *Child Psychology*  
 Psychology 129, *Educational and Vocational Guidance*  
 Psychology 132, *Individual Psychological Testing*  
 Psychology 134, *Educational and Psychological Measurements*  
 Psychology 220, *Seminar: Child Development*  
 Psychology 221, *Seminar: Educational Psychology*  
 Psychology 226, *Seminar: Clinical Psychology of Childhood*  
 Psychology 227, *Seminar: Techniques of Counseling*  
 Psychology 230, *Seminar: Educational and Vocational Guidance*  
 Psychology 231, *Seminar: Test Construction*  
 Psychology 232, *Research: Test Construction*  
 Romance Languages 176, *Teaching of Romance Languages*  
 Sociology 121, *Educational Sociology*  
 Sociology 135, *Child-welfare Problems*  
 Sociology 176, *The Modern Family*  
 Statistics 103-4, *Statistics in Psychology and Education*

## ELECTRICAL ENGINEERING

\*Norman Bruce Ames, M.S., E.E., LL.B., *Professor of Electrical Engineering*

Forest Klaire Harris, Ph.D., *Professorial Lecturer in Electrical Engineering*

Newbern Smith, M.S. in E.E., Ph.D., *Professorial Lecturer in Electrical Engineering*

Milton Kent Akers, B.S., E.E., *Associate Professor of Electrical Engineering, Acting Executive Officer*

\*Alfred Ennis, M.S., E.E., D.Eng., *Assistant Professor of Electrical Engineering*

Edward Iannelli, B.E.E., *Lecturer in Electrical Engineering*

Carl Harrison Smith, Jr., B.E.E., *Associate in Electrical Engineering*

George Edward Sangster, B.E.E., *Associate in Electrical Engineering*

*Minimum requirements for the major—See pages 1 and 102.  
Summer term 1913.—All even numbered courses will be offered, except Electrical Engineering 112.*

### FIRST GROUP

#### 9-10 *Elements of Electrical Engineering (3-3)* Akers

Electrical Engineering 9: mechanics and electric circuits, and direct-current instruments and machines; Electrical Engineering 10: alternating-current circuits, instruments, and machines. Prerequisite: Physics 7. Prerequisite or concurrent registration: Mathematics 23. Section A: Mon., Wed., and Fri., 12:10 P.M.; section B: Mon., Wed., and Fri., 7:10 P.M.

#### 13-14 *Direct- and Alternating-Current Laboratory (2-2)* Sangster

For the student not majoring in electrical engineering. Experiments in direct and alternating currents and power and alternating-current machinery. Prerequisite: Electrical Engineering 9-10. Laboratory fee, \$6 a term. Section A: Mon., 1:40 P.M.; section B: Fri., 1:40 P.M.; section C: Mon., 8:10 P.M.; section D: Thurs., 8:10 P.M.; section E: Fri., 8:10 P.M.

#### 17-18 *Direct-Current Laboratory (2-2)* Sangster

For the student majoring in electrical engineering. A course in measurements and direct-current dynamo laboratory. Prerequisite: Electrical Engineering 9-10. Laboratory fee, \$6 a term. Section A: Mon., 1:40 P.M.; section B: Fri., 1:40 P.M.; section C: Mon., 8:10 P.M.; section D: Thurs., 8:10 P.M.; section E: Fri., 8:10 P.M.

\* On war leave 1941-44.



## SECOND GROUP

- 101 *Electric Circuits (3)* Akers  
Alternating-current-circuit theory. Extensive consideration is given to harmonic analysis and to the study of harmonics in both single-phase and polyphase circuits. Prerequisite: Electrical Engineering 10. Mon., Wed., and Fri., 6:10 P.M.
- 102 *Alternating-Current Machinery (3)* Ames  
Synchronous generators and motors, transformers, and mercury arc rectifiers. Prerequisite: Electrical Engineering 101. Mon., Wed., and Fri., 6:10 P.M.
- 103 *Alternating-Current Machinery (3)* Ames  
A continuation of Electrical Engineering 102. Converters, induction motors, single-phase motors, and elementary transmission and distribution of alternating currents. Prerequisite: Electrical Engineering 102. Mon., Wed., and Fri., 6:10 P.M.
- 111-12 *Electrical Measurements (2-2)* Harris  
Theory of direct-current and alternating-current instruments, bridges, and meters. Prerequisite or concurrent registration: Electrical Engineering 101. Tues. and Thurs., 7:10 P.M.  
Electrical Engineering 112 not offered 1943 summer term.
- 125-26 *Principles of Electric Power Transmission (2-2)* Akers  
Mechanical and electrical characteristics of transmission lines; approximate and rigorous solutions by means of hyperbolic functions; steady-state and elementary transient considerations; the more important phases of distribution of electrical energy. Prerequisite: Electrical Engineering 101. Tues. and Thurs., 7:10 P.M.
- 133-34 *Alternating-Current Laboratory (2-2)* Sangster  
A continuation of Electrical Engineering 17-18, with experiments on alternating-current circuits, instruments, and machinery. Prerequisite: Electrical Engineering 18 and 103. Laboratory fee, \$6 a term. Section A: Mon., 1:40 P.M.; section B: Fri., 1:40 P.M.; section C: Mon., 8:10 P.M.; section D: Thurs., 8:10 P.M.; section E: Fri., 8:10 P.M.
- 136 *Hydro-Electric Engineering (2)* Akers  
Present-day theory and practice in hydro-electric engineering. Prerequisite: Electrical Engineering 10; Civil Engineering 136. Tues. and Thurs., 6:10 P.M.
- 137 *Electric Traction (2)* Akers  
Theory and practice of modern direct- and alternating-current railways. Prerequisite: Electrical Engineering 12. Tues. and Thurs., 6:10 P.M.
- 138 *Industrial Electrical Power Applications (2)* Akers  
The characteristics of the various types of electrical motors and other power appliances and the principles governing their applications in industry. Prerequisite: Electrical Engineering 10 and junior standing. Tues. and Thurs., 6:10 P.M.

140 *Electrical Design* (3)

Akers

Principles of design, with reference to materials of construction and electrical equipment. Practical exercises are assigned in connection with classroom work. Prerequisite: Electrical Engineering 133. Drafting room fee, \$1. Mon. and Fri., 6-12 P.M., and Tues., 8-12 P.M.

141-42 *Communication Engineering* (3-3) Iannelli, C. H. Smith

Principles of communication circuits and measurements. Particular attention is given to low and intermediate frequency phenomena. Prerequisite: Electrical Engineering 131; Physics 132. Laboratory fee, \$6 a term. Lecture—Tues. and Thurs., 6-7 P.M. Laboratory—Frid. at 7 P.M., 8-12 P.M.

143-44 *High Frequency Communication* (3-3)

N. Smith

Principles of high frequency communication circuits and of high frequency measurements. Prerequisite: Electrical Engineering 141, Physics 132. Lecture—Tue. and Thurs., 6-7:25 P.M.

189-90 *Proseminar in Electrical Engineering* (1-1)

Akers

Prerequisite: Electrical Engineering 133. Wed., 6-7 P.M.

## ENGLISH

Robert Whitney Bolwell, Ph.D., *Professor of American Literature*

\*Joseph Quincy Adams, Ph.D., Litt.D., *Adjunct Professor of English*

Courtland Darke Baker, Ph.D., *Associate Professor of English*

Audley Lawrence Smith, Ph.D., *Associate Professor of English*

Ernest Sewall Shepard, A.M., *Associate Professor of English, Executive Officer*

‡George Winchester Stone, Jr., Ph.D., *Associate Professor of English*

Fred Salisbury Tupper, Ph.D., *Associate Professor of English*

Charles William Cole, Ph.D., *Assistant Professor of English*

Maurice Harold Irvine, Ph.D., *Assistant Professor of English*

Katharine Rogers Adams, Ph.D., *Lecturer in English*

Albert Santee Kerr, A.M., *Instructor in English*

Averett Howard, A.M., *Instructor in English*

§William Lewis Turner, A.M., *Instructor in English*

Martin Steele Dav. A.B., *Instructor in English*

John Martin Yoklavich, A.M., *Instructor in English*

*The major.*—The coordinated knowledge which a student must exhibit in the major in English, and upon which he will be examined at the end of his senior year, is arranged under four general headings: (1) the history of English literature from the Anglo-Saxon period to 1900; (2) the chief English writers in certain familiarity with each man and his main works and a detailed knowledge of Shakespeare; (3) English social and political history, 1300 to 1900, as it bears upon the literature; (4) European intellectual backgrounds and movements which have affected English literature. It is advised that the student planning to major in English elect courses in English and European historical and intellectual backgrounds before his junior year.

*The minor in American Thought and Civilization.*—For details, see the pamphlet on this subject and consult the adviser.

### FIRST GROUP

#### 1-2 *Freedom in English* § (3-5)

The Staff

Grammatical review, exercises in composition, study and criticism of literature. Sec. A: Mon., Wed., and Fri., 9:10 A.M.; section B: Tues., Thurs., and Sat., 9:10 A.M.; section C: Mon., Wed., and Fri., 10:10 A.M.; section D: Tues., Thurs., and Sat., 10:10 A.M.; section E: Mon., Wed., and Fri., 11:10 A.M.; section F: Tues., Thurs., and Sat., 11:10 A.M.

\* On leave of absence 1943-44.

‡ On war leave 1943-44.

§ Students registered in English 1 are at the beginning of the course tested in the minimum essentials of grammar, composition, vocabulary, writing skill, and reading, speed and comprehension. Those students who show marked superiority may be exempted from one or both terms of the course.

11:10 A.M.; section G: Mon., Wed., and Fri., 5:10 P.M.; section H: Mon., Wed., and Fri., 6:10 P.M.; section K: Tues. and Thurs., 6:10 to 7:25 P.M.; section L: Mon., Wed., and Fri., 7:10 P.M.; section M: Mon., Wed., and Fri., 8:10 P.M.

English 1x—same as English 1, but offered winter term. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Tues., Thurs., and Sat., 9:10 A.M.; section C: Mon., Wed., and Fri., 10:10 A.M.; section D: Tues., Thurs., and Sat., 10:10 A.M.; section E: Mon., Wed., and Fri., 11:10 A.M.; section F: Tues., Thurs., and Sat., 11:10 A.M.; section G: Mon., Wed., and Fri., 5:10 P.M.; section H: Mon., Wed., and Fri., 6:10 P.M.; section K: Tues. and Thurs., 6:10 to 7:25 P.M.; section L: Mon., Wed., and Fri., 7:10 P.M.; section M: Mon., Wed., and Fri., 8:10 P.M.

English 2x—same as English 2, but offered fall term. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Tues., Thurs., and Sat., 9:10 A.M.; section C: Mon., Wed., and Fri., 10:10 A.M.; section D: Tues., Thurs., and Sat., 10:10 A.M.; section E: Mon., Wed., and Fri., 11:10 A.M.; section F: Tues., Thurs., and Sat., 11:10 A.M.; section G: Mon., Wed., and Fri., 5:10 P.M.; section H: Mon., Wed., and Fri., 6:10 P.M.; section K: Tues. and Thurs., 6:10 to 7:25 P.M.; section L: Mon., Wed., and Fri., 7:10 P.M.; section M: Mon., Wed., and Fri., 8:10 P.M.

Summer term 1943.

- 3 *Freshman English for Foreign Students* (3) Rogers  
A course in reading and writing designed to take the place of English 1. Special attention is given to spelling, syntax, grammar, idiom, and vocabulary. Tues. and Thurs., 6:10 to 7:25 P.M.

- 9 *Sophomore Composition* (3) Irvine  
A study of the contemporary essay, with weekly exercises in expository writing. Prerequisite: English 1-2. Mon., Wed., and Fri., 7:10 P.M.

- 10 *Sophomore Composition* (3) Irvine  
A study of the modern short story, with exercises in narrative writing. Prerequisite: English 1-2. Mon., Wed., and Fri., 7:10 P.M.

- 51-52 *Introduction to English Literature* (3-3) Smith  
A historical survey. Section A: Tues., Thurs., and Sat., 10:10 A.M.; section B: Tues. and Thurs., 6:10 to 7:25 P.M.  
Summer term 1943—English 51 (3).

- 71-72 *Introduction to American Literature* (3-3) Bolwell, Cole  
A historical survey. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.  
Summer term 1943.

- 91-92 *Introduction to European Literature* (3-3) Shepard  
Consideration of various types. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.  
Summer term 1943.



## SECOND GROUP

- 115-16 *The Short Story* (3-3) Irvine  
The philosophy and technique of the short story from the writer's point of view. Prerequisite: English 10 with honor grade, or consent of the instructor after submission of a specimen of imaginative writing. Hours to be arranged.
- 121-22 *English Literature from the Beginnings to 1400* (3-3) Stone  
Prerequisite: English 51-52, 71-72, or 91-92. (Not offered in 1943-44.)
- 123-24 *Old English* (3-3) Stone  
English language and literature before 1100. Prerequisite: English 51-52, 71-72, or 91-92. (Not offered in 1943-44.)
- 125 *The Evolution of Modern Speech* (2) Stone  
The development of the English language in a historical treatment of English grammar. (Not offered in 1943-44.)
- 129-30 *Renaissance and Elizabethan Literature* (3-3) Tupper  
Nondramatic literature from 1400 to 1603. Prerequisite: English 51-52, 71-72, or 91-92. (English 129 not offered in 1943-44.)  
English 130—same as English 132, but offered fall term, Mon., Wed., and Fri., 9:10 A.M.
- 135-36 *Shakespeare* (3-3) Tupper  
Prerequisite: English 51-52, 71-72, or 91-92. Tues. and Thurs., 6:10 to 7:25 P.M.  
Summer term 1943—English 136 (3)
- 139-40 *The Seventeenth Century* (3-3) Baker  
English literature from 1603 to 1660. Prerequisite: English 51-52, 71-72, or 91-92. Mon., Wed., and Fri., 9:10 A.M. (English 139 not offered in 1943-44.)
- 141-42 *The Neoclassical Movement* (3-3) Smith  
Poetry and prose from 1660 through the mid-eighteenth century. Prerequisite: English 51-52, 71-72, or 91-92. (Not offered in 1943-44.)  
Summer term 1943.
- 151-52 *The Romantic Movement* (3-3) Smith  
From the mid-eighteenth century through Shelley and Keats. Prerequisite: English 51-52, 71-72, or 91-92. Tues., Thurs., and Sat., 9:10 A.M.
- 161-62 *Victorian Literature* (3-3) Shepard  
Poetry and prose from 1830 to 1890. Prerequisite: English 51-52, 71-72, or 91-92. Mon., Wed., and Fri., 6:10 P.M.
- 165 *Contemporary British Literature* (3) Baker  
A survey of British literature since 1890. Prerequisite: English 51-52, 71-72, or 91-92. Mon., Wed., and Fri., 7:10 P.M.
- 166 *American Literature since 1912* (3) Baker  
Prerequisite: English 51-52, 71-72, or 91-92. Mon., Wed., and Fri., 7:10 P.M.  
Summer term 1943.

- 171-72 *Studies in American Literature* (3-3) Bolwell, Cole  
Major factors in the national cultural tradition as shown by outstanding writers. Prerequisite: English 51-52 or 71-72. Mon., Wed., and Fri., 10:10 A.M.  
Summer term 1943—English 171 (3).
- 175 *The American Drama* (3) Bolwell  
From the colonial period to the present day. Prerequisite: English 51-52 or 71-72. Mon., Wed., and Fri., 6:10 P.M.
- 176 *The American Novel* (3) Cole  
Chronological development of fiction from the beginnings to the present day. Mon., Wed., and Fri., 6:10 P.M.
- 179-80 *Proseminar: Readings for American Civilization Major* (3-3) Bolwell, Cole  
Conferences and group discussions. Wed., 8:00 P.M.
- 181-82 *The English Novel* (3-3) Kerr  
A historical survey of English fiction from the eighteenth century to the present. Prerequisite: English 51-52, 71-72, or 91-92. Tues., Thurs., and Sat., 10:10 A.M.
- 183-84 *The English Drama* (3-3) Tupper  
A historical survey. Tues., Thurs., and Sat., 10:10 A.M. (English 183 not offered in 1943-44.)  
Summer term 1943.
- 193 *An Introduction to the Study of Poetry* (3) Baker  
Summer term 1943.
- 199-200 *Proseminar: Readings for English Literature Major* (3-3) Baker, Tupper  
Conferences and group discussions. Section A: Tues., 1:00 to 4:00 P.M.; section B: Thurs., 7:30 to 10:30 P.M.

## THIRD GROUP

- 201-2 *Methods and Materials in Elizabethan Research* (3-3) J. Q. Adams  
Open only to the graduate student. Admission by permission of the instructor. (Not offered in 1943-44.)
- 211-12 *Seminar in Graduate Research in English* (3-3) Baker  
Tues., 8:00 P.M.
- 235-36 *Seminar in Shakespeare* (3-3) Tupper  
Prerequisite: English 135-36. (Not offered in 1943-44.)
- 239-40 *Studies in Early-Seventeenth Century Literature* (3-3) Baker  
Prerequisite: English 139-40. (Not offered in 1943-44.)
- 241-42 *Studies in Neoclassical Literature* (3-3) Smith  
Prerequisite: English 141-42. (Not offered in 1943-44.)

- |         |  |           |
|---------|--|-----------|
| 251-52  | <i>Studies in the Romantic Movement</i> (3-3)  | Smith     |
|         | Prerequisite: English 151-52. (Not offered in 1943-44.)                                  |           |
| 271-72  | <i>Seminar: American Literature</i> (3-3)  | Bolwell   |
|         | Prerequisite: English 171-72 or the equivalent. Mon., 8:00 P.M.                          |           |
| 295-96  | <i>History of English Literary Criticism</i> (3-3)                                       | Smith     |
|         | Open to the undergraduate with the approval of the instructor. (Not offered in 1943-44.) |           |
| 299-300 | <i>Thesis</i> (3-3)  | The Staff |

## RELATED COURSE IN ANOTHER DEPARTMENT

Education 136, *Teaching of English*

## GEOLOGY

### *Associate Professor of Geology*

*Minimum requirements for the major.*—Twenty-four credit hours of geology beyond the first-group courses.

#### FIRST GROUP

5 *Field Geology* (6)

Field trip to local boring localities of geological interest, with classroom study. Hours to be arranged.

21-22 *Physical and Historical Geology* (3-3)

Survey course covering the principles of physical geology, geology, and mineralogy. Hours to be arranged.

#### SECOND GROUP

121-22 *Paleontology* (3-3)

Lecture and laboratory work on classification and structure of fossil invertebrates, vertebrates, and plants, including their use as guide fossils in stratigraphic geology. Hours to be arranged.

123-24 *Regional Geology of North and South America* (3-3)

Lectures and map work on the physiographic regions of the Western Hemisphere, stressing the relationship between geology and geography and culture. Hours to be arranged.

125-26 *Regional Geology of the Eastern Hemisphere* (3-3)

Alternating with Geology 123-24 and with it completing a survey of the world. Hours to be arranged.

#### THIRD GROUP

215-16 *Seminar* (3-3)

Directed study and presentation by the class and instructor of some phase of geology with review of current literature. Hours to be arranged.

227-28 *Research*

Original work on individual problems, including a direct of the published record. Hours and credits to be arranged.

299-300 *Thesis* (3-3)



## GERMANIC LANGUAGES AND LITERATURES

Edward Henry Sehrt, Ph.D., *Professor of German, Executive Officer*  
 Gretchen Louisa Rogers, Ph.D., *Assistant Professor of German*  
 Wolfram Karl Legner, Ph.D., *Assistant Professor of German*

*Minimum requirements for the major.*—Twenty-four credit hours of German beyond first-group courses.

### FIRST GROUP

- †1-2 *First-year German* (3-3) Rogers, Legner  
 The essentials of German grammar; translation of easy prose. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Tues. and Thurs., 11:10 A.M. to 12:25 P.M.; section C: Mon., Wed., and Fri., 6:10 P.M.; section D: Mon., Wed., and Fri., 7:10 P.M.

German 2x—same as German 2, but offered fall term, Tues. and Thurs., 6:10 to 7:25 P.M.

Summer term 1943

- †5-6 *Second-year German* (3-3) Rogers, Legner  
 Selections from modern German prose; review of grammar. Prerequisite: German 1-2 or two years of high school German. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943

### SECOND GROUP

- †101-2 *Rapid Readings in Modern German Prose* (3-3) Sehrt and Sta

Section A: Tues. and Thurs., 10:10 A.M., third hour in prose composition Sat., 10:10 A.M.; section B: Mon. and Wed., 8:10 P.M., third hour in prose composition, Tues., 8:10 P.M.

- †103-4 *Goethe's "Faust"* (3-3) Sehrt  
 Hours to be arranged.

- †105-6 *German Classicism* (3-3) Sehrt  
 Particularly the works of Goethe and Schiller. Hours to be arranged.

- †107-8 *Advanced Prose Composition* (1-1) Rogers  
 Section A: Sat., 10:10 A.M.; section B: Tues., 8:10 P.M.

- 109-10 *German Drama since 1800* (3-3) Sehrt  
 Dramas of Kleist, Grillparzer, Hebbel, and Hauptmann. Hours to be arranged.

- †111-12 *The German Romantic Movement* (3-3) Sehrt  
 Hours to be arranged.

- †113-14 *Scientific German* (1-1) Legner  
 Prerequisite: German 5-6 or the equivalent. Fri., 8:10 P.M.  
 (194)

- †119-20 *Survey of German Literature* (3-3) Sehrt  
Mon., Wed., and Fri., 7:10 P.M.
- †121-22 *Conversation and Composition* (3-3) Rogers  
Prerequisite: German 5-6 or the equivalent. Mon., Wed., and Fri.  
8:10 P.M.
- 124 *Military German* (3) Legner  
Prerequisite: German 5-6 or the equivalent. Mon., Wed., and Fri.  
6:10 P.M.

## THIRD GROUP

- †201-2 *Middle High German* (3-3) Sehrt  
Hours to be arranged.
- †205-6 *Gothic* (3-3) Sehrt  
Introduction to the comparative study of the Germanic languages  
Hours to be arranged.
- †209 10 *Old High German* (3-3) Sehrt  
Hours to be arranged.
- 213-14 *Old Norse* (3-3) Sehrt  
Hours to be arranged.
- 215 *The German "Novelle"* (3) Rogers  
Hours to be arranged.
- 218 *The German Lyric from Opitz to Rilke* (3) Legner  
Hours to be arranged.
- 221 *Introduction to Linguistics* Sehrt  
Admission by permission of the instructor. Hours and credits to be  
arranged.
- 222 *Indo-European Languages* Sehrt  
Application of the laws of sound change in language; origin and de-  
velopment of suffixes and inflections; syntax. Hours and credits to be  
arranged.
- †223-24 *Sanskrit* (3-3) Sehrt  
Introduction to comparative Indo-European grammar. Hours to be  
arranged.
- 299-300 *Thesis* (3-3) The Staff

## HEALTH ADMINISTRATION

**\*Daniel LeRay Borden, A.M., M.D., *University Surgeon, Director***  
**Benjamin Franklin Dean, Jr., M.S., M.D., *University Surgeon, Acting Director***

**Frank Adelbert Hornaday, M.S., M.D., *Consulting University Physician***  
**Robert Howe Harmon, A.B., M.D., *University Physician***  
**Ronald Atmore Cox, A.B., M.D., *Associate University Physician (Eye)***  
**Jeter Carroll Bradley, M.D., *Associate University Physician (Nose and Throat)***

**Charles Seymour Coakley, M.D., *Associate University Physician***  
**Richard Bernard Castell, A.B., M.D., *Associate University Physician***  
**Elizabeth Kahler, A.M., M.D., *Associate University Physician***

The payment of the University fee entitles the student to health services hereinafter described. Through student reports and those of University officials, the University attempts to keep informed as to all cases of illness among its students. This service is primarily diagnostic in its intent. It also provides first aid in the event of an emergency.

Medical privileges include: (1) the physical examination of every student entering from secondary school;† (2) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examination; (3) hospitalization, including board, medicine, and nursing in the University Hospital for not more than two weeks during a school year—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, two weeks) is also to be determined by the Director of Health Administration.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of the University registration fee.

The student is allowed, if he so desires, to engage physicians and nurses of his own choice, but when he does so he will be responsible for the fees charged.

Rules. (1) The Director of Health Administration is empowered to limit or deny the medical benefits where, in his discretion, a student has, by his misconduct or breach of the rules of the University, made himself ineligible; (2) the Director of Health Administration has authority to determine the necessity and length of hospitalization; (3) a student who has severed his connection with the University is ineligible for medical benefits; (4) a student intending to train for an athletic team is required to pass a thorough examination at the beginning of each term; (5) the above regulations apply also during the summer term of the University.

The University is not responsible for injuries received in inter-collegiate or intra-mural games, or in any of the activities of the physical education departments.

\* On war leave 1943-44.

† A charge of \$2 is made by the University if a student fails to appear for a physical examination during the period set for this purpose.

## HISTORY

**Elmer Louis Kayser, Ph.D., Professor of European History, Acting Executive Officer**

**Lowell Ragatz, Ph.D., Professor of European History**

**Alva Curtis Wilgus, Ph.D., Professor of Hispanic American History**

**\*Wood Gray, Ph.D., Associate Professor of American History**

**\*Howard Maxwell Merriman, Ph.D., Associate Professor of American Diplomatic History**

**George Howland Cox, Lecturer on Hispanic American History**

*The major.*—Candidates for the major in history may follow the old plan or the new plan in fulfillment of their requirements.

*The old-type major.*—Prerequisite: History 39-40 and 71-72. Required: twenty-four credit hours of second- and third-group course, including one six-hour seminar. Recommended in addition: Introductory Economics, International Law, and History of Philosophy.

*The new-type major.*—Prerequisite: History 39-40 and 71-72. The new-type major indicates a knowledge of four fields of history selected from the following list, attested by major examinations: (1) the literature and method of history (required); (2) backgrounds of the modern world, to 1500; (3) modern and contemporary Europe; (4) diplomatic history and modern imperialism; (5) development of the United States; (6) Hispanic American civilization. A six-day research seminar, exclusive of History 199-200, is a required part of each major's program to give training in fundamental techniques. For details of courses and readings offering preparation for the major examinations see the pamphlet on this subject or consult the adviser.

### FIRST GROUP

**39-40 *The Development of European Civilization* (3-3)**

Kayser, Ragatz

Primarily for freshmen. Fall term: the political, social, economic, and cultural history of the Old World from ancient times to 1500; winter term: from 1500 to the present. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.

Summer term 1943.

**71-72 *The Development of American Civilization* (3-3)**

Wilgus

Primarily for sophomores. Fall term: the political, social, economic, and cultural forces of the United States in their world setting from 1492 to 1865; winter term: from 1865 to the present. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943.

\* On war leave 1943-44.



## SECOND GROUP

- 120 *Intellectual Aspects of the Renaissance and the Reformation* (2) Kayser  
Aspects of the development of the modern mind approached through a study of the lives and contributions of outstanding personalities of the period. Prerequisite: History 39-40. Mon., Wed., and Fri. 9-11 A.M.
- 130 *Nationalism* (3) Kayser  
The historical evolution of modern nationalism. Prerequisite: History 39-40.  
Summer term 1943.
- 143 *Modern Europe, 1815-1914* Ragatz  
A comprehensive survey of Old World history from the Congress of Vienna to the outbreak of the First World War. Prerequisite: History 39-40 or 151-52. 1943-44 and alternate years, Tues. and Thurs., 6:10 to 7:25 P.M. 1944-45 and alternate years, Mon., Wed., and Fri. 11-12 A.M.
- 144 *Europe since 1914* (3) Ragatz  
The First World War and its aftermath. Prerequisite: History 39-40 or 151-52. 1943-44 and alternate years, Tues. and Thurs., 6:10 to 7:25 P.M. 1944-45 and alternate years, Mon., Wed., and Fri. 11:10 A.M.
- 145 *Modern Imperialism* (3) Ragatz  
International rivalries in Africa, Asia, and the Pacific Basin. Prerequisite: History 39-40 or 151-52. 1943-44 and alternate years, Mon., Wed., and Fri. 11:10 A.M. 1944-45 and alternate years, Mon., Wed., and Fri. 7:10 P.M.  
Summer term 1943.
- 147 *Economic History of Europe* (3) Ragatz  
A survey from ancient times to the present day. Prerequisite: History 39-40 or 151-52. 1943-44 and alternate years, Mon., Wed., and Fri. 7:10 P.M. 1944-45 and alternate years, Mon., Wed., and Fri. 9:10 A.M.
- 151-52 *English History* (3-3) Kayser  
A general survey course with emphasis on the development of the British Constitution in its historical setting. Mon., Wed., and Fri. 10:10 A.M.
- 161-62 *Hispanic American Civilization* (3-3) Wilgus  
A survey of the political, economic, social, and institutional affairs of the Ibero-American colonies (fall term) and the Period of Independence (winter term). Mon., Wed., and Fri. 6:10 P.M.  
Summer term 1943—History 162 (3).
- 167-68 *Latin American and Inter-American Problems* (2-2) Cox  
A series of interpretative lectures on the social, educational, political, and commercial affairs of the three Americas. Also, an outline of the Inter-American and the Latin American background problems that have affected Pan American relations. Open to the public as auditors.

without credit. Prerequisite: History 167 for students taking 168 in the winter term. Sponsored by the Inter-American Center. Section A: Tues., 3:10 to 5:00 P.M.; section B: Tues., 7:10 to 9:00 P.M.

- 171-72 *Social History of the United States* (3-3) Gray  
Daily life, institutions, intellectual and artistic achievement. Fall term: the Agrarian Era, 1607-1861; winter term: the Urban-Industrial Era, 1861 to the present time. Prerequisite: History 71-72. (Not offered in 1943-44.)
- 174 *Economic History of the United States* (3) Gray  
Main trends in the development of American agriculture, industry, and trade since 1607, with emphasis on tendencies and problems since the Civil War. Prerequisite: History 71-72. (Not offered in 1943-44.)
- 181-82 *Diplomatic History of the United States* (3-3) Merriman  
Tendencies toward isolation, expansion, and collectivism; disputes with foreign countries and their settlement; and the activities of American secretaries of state and diplomatic agents. Fall term: to the Civil War; winter term: since the Civil War. Prerequisite: History 71-72. (Not offered in 1943-44.)
- 191-92 *Current History* (1-1) Kayser  
Contemporary events in their world setting. Section A: Sat., 11:15 A.M.; section B: Mon., 8:10 P.M.  
Summer term 1943—(Kayser, Johnstone).
- 199-200 *Proseminar: The Literature and Method of History* (3-3) Kayser  
Limited to majors in history. Fall term: history and historians; winter term: supervised reading in preparation for the major examinations. (Not offered in 1943-44.)
- THIRD GROUP
- 241-42 *Seminar in Modern European History* (3-3) Ragatz  
Modern revolutions. Prerequisite: History 39-40 or 151-52 and instructor's approval. Thurs., 8:00 to 10:00 P.M.
- 281-82 *Seminar in the History of the Americas* (3-3) Wilgus  
Prerequisite: History 71-72 and instructor's approval. Mon., 8:00 to 10:00 P.M.
- 291-92 *Seminar* (3-3) The Staff  
Prerequisite: approval of the Department. Hours to be arranged.  
Summer term 1943.
- 299-300 *Thesis* (3-3) The Staff  
Required of all candidates for the Master's degree specializing in history.

## HOME ECONOMICS

Frances Kirkpatrick, A.M., *Associate Professor of Home Economics*  
*Executive Officer*

Kathryn Mildred Towne, A.M., *Assistant Professor of Home Economics*

Margaret Olive Osborn, M.S., *Instructor in Home Economics*

*Minimum requirements for the degree.*—See pages 117-18.

### FIRST GROUP

- 1 *Food Selection and Preparation* (3) Kirkpatrick  
 Composition, selection, and preparation of food; analysis of recipes; standard products; planning, preparing, serving, and estimating the cost of meals. Material fee, \$10.00. Section A: Mon. and Wed., 1:40 to 4:30 P.M.; section B: Tues. and Thurs., 1:40 to 4:30 P.M.  
 Home Economics 1X—same as Home Economics 1, but offered winter term. Mon. and Wed., 6:10 to 9:00 P.M.
- 3 *Nutrition and Its Relation to Health* (2) Osborn  
 Open to both men and women. Nutritional requirements and the relation of foods to the maintenance and promotion of health; the factors which influence the nutritive value of foods and the recent trends in dietary habits. Tues., 6:10 to 8:00 P.M.
- 22 *Clothing: Its Selection, Cost, and Care* (3) Towne  
 Clothing selection—the economic, aesthetic, and hygienic aspects; the application of the principles of color and design to individual selection; the care of clothing. Mon., Wed., and Fri., 9:10 A.M.  
 Home Economics 22X—same as Home Economics 22, but offered fall term. Mon., Wed., and Fri., 6:10 P.M.
- 24 *Consumer Problems Arising Out of the War* (2) Towne  
 Open to both men and women. Adjustment of expenditures to current incomes and the use of wartime substitutes in the home. Mon., 6:10 to 8:00 P.M.
- 51 *Family Meals* (3) Kirkpatrick  
 The choice, purchase, preparation, and service of food; dietary standards, food habits, and the nutritional needs of the family; problems of purchasing, care, and use of food by the consumer. Material fee, \$6.00. Wed. and Fri., 11:10 A.M. Laboratory—Mon., 11:10 A.M. to 1:00 P.M.
- 52 *Food Problems* (3) Kirkpatrick  
 Factors affecting the preparation of standard products from the experimental viewpoint; principles of food demonstrations. Material fee, \$10.00. (Not offered in 1943-44.)
- 54 *Family Health and Household Sanitation* (3) Kirkpatrick  
 Home hygiene and home care of the sick; the principles of household sanitation in relation to health and disease. Material fee, \$3.00. Tues. and Thurs., 6:10 to 8:00 P.M.



- 62 *Clothing Construction* (3) Towne  
Techniques of construction suitable for cotton, wool, and silk fabrics; the use of commercial patterns and their simple alteration; the proper selection of color, design, and fabric. Material fee, \$3.00. Mon. and Wed., 1:40 to 4:30 P.M.
- 71 *Costume Design and Fashion Economics* (3) Towne  
Factors determining fashions and effect on cost of clothing; problems of the designer of textile and clothing; historic costume and its relation to modern dress. Material fee, \$3.00. Tues. and Thurs., 1:40 to 3:30 P.M.
- 72 *Household Textiles* (3) Towne  
Properties, uses, and tests of the different textile fibers and fabrics, and development of judgment and knowledge of standard for the consumer of clothing and house-furnishing material. Material fee, \$3.00. Tues. and Thurs., 6:10 to 8:00 P.M.

## SECOND GROUP

- 102 *Advanced Food Preparation* (3) Kirkpatrick  
The application of the fundamental processes of food preparation to a wider range of food materials and various services for different occasions. Material fee, \$10.00. Tues. and Thurs., 9:10 A.M. to 12:00 M.
- 123 *Household Finance and Problems of the Consumer* (3) Towne  
Economic problems of the family in modern industrial society; family income; income apportionment and household expenditures; laws affecting the home; investments; consumer buying. Mon. and Wed., 7:10 to 8:35 P.M.
- 143 *Advanced Clothing Construction* (3) Towne  
Problems of clothing construction, including renovation, flat pattern designing. Material fee, \$3.00. (Not offered in 1943-44.)
- 152 *Nutrition and Dietetics* (3) Kirkpatrick  
Principles of normal and abnormal human nutrition; calculation and preparation of dietaries. Material fee, \$3.00. (Not offered in 1943-44.)
- 164 *Child Nutrition* (3) Kirkpatrick  
Basic principles in nutrition and growth of the infant, pre-school, and adolescent child in health and disease. Mon. and Wed., 11:10 A.M. Laboratory—Fri., 11:10 A.M. to 1:00 P.M.
- 168 *Institutional Management* (3) Kirkpatrick  
Study of the organization, equipment, and marketing problems of institutions. (Not offered in 1943-44.)
- 171 *House Furnishing* (3) Towne  
Home planning from the historic, artistic, economic, and sanitary viewpoints; home furnishings such as linens, dishes, floor covering, mattresses, etc. Material fee, \$3.00. Tues. and Thurs., 11:10 A.M. to 12:25 P.M.



- 192 *The Home, Its Management and Equipment* (3) Kirkpatrick  
 Economical management of the home; distribution of time and energy; problems in the selection, arrangement and care of equipment. (Not offered in 1943-44.)
- 195-96 *Special Problems* (3-3) The Staff  
 Individual investigation or study under the guidance of a member of the staff. Suggested problems are home economics education, marketing, tailoring, and draping. Program and conferences arranged with an instructor.
- 197-98 *Proseminar* (3-3) The Staff  
 The study of the most recent materials and problems in the various phases of home economics. Wed., 7:10 to 9:00 P.M.

#### SPECIAL PROGRAM OF INTENSIVE COURSES FOR NAVY NURSES

Review of Biochemistry (2); Quantity Cookery (3); Review of Physiology (2); Institutional Management (3); Food Selection (3); Food Sanitation (3); Food Preparation (3); Diet Therapy (4); Meal Planning and Service (3); Special Diet Preparation (3); Nutrition (3)  
 Kirkpatrick, Towne, Osborn

## JOURNALISM

\*Marcelle LeMénager Lane, A.M., *Assistant Professor of Journalism*

†John William Thompson, Jr., A.B., *Lecturer in Journalism*

\*Merlo John Pusey, A.B., *Lecturer in Journalism*

### FIRST GROUP

- 11-12 *Journalism Survey* (3-3) Lane  
History of journalism; survey of character and content of leading newspapers to develop intelligent reading necessary for future work in journalism; practice in news writing. Laboratory fee, \$3 a term. (Not offered in 1943-44.)

### SECOND GROUP

- 111-12 *Reporting* (3-3) Thompson  
Techniques of newspaper reporting and copy reading; instruction and practice in modern methods of gathering and presenting news. Prerequisite: Journalism 11-12 or the equivalent. Laboratory fee, \$3 a term. (Not offered in 1943-44.)
- 113-14 *Reporting of National and International Affairs* (3-3)  
Training in the coverage and presentation of national and international news; special consideration of the qualifications necessary for Washington correspondence and press relations reporting. Prerequisite: Journalism 111-12 or the equivalent. Laboratory fee, \$3 a term. (Not offered in 1943-44.)
- 121-22 *Feature Writing* (3-3) Lane  
Instruction and practice in the writing of special feature articles, material for which is obtained through independent investigation. Prerequisite: Journalism 11-12 or the equivalent. (Not offered in 1943-44.)
- 141-42 *Advertising* (3-3)  
The objectives and methods of advertising from its beginning to the present; training in the writing and selling of advertising as practiced in newspaper, magazine, radio, and other fields. (Not offered in 1943-44.)
- 151-52 *Editorial Writing* (3-3)  
Current events from the standpoint of editorial interpretation; editorial research methods; instruction and practice in the writing of editorials, and columns on public affairs. Prerequisite: Journalism 111-12 or the equivalent. (Not offered in 1943-44.)

\* On leave of absence 1943-44.  
† On war leave 1943-44.

## LAW

William Cabell Van Vleck, A.B., LL.B., S.J.D., *Professor of Law*  
*Executive Officer*

Charles Sager Collier, A.B., LL.B., S.J.D., *Professor of Law*  
 Hector Galloway Spaulding, B.S., LL.B., S.J.D., *Professor of Law*

\*William Thomas Fryer, A.B., LL.B., J.D., *Professor of Law*  
 Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*

Carville Dickinson Benson, A.B., LL.B., S.J.D., *Professor of Law*  
 Loyd Hall Sutton, B.S., LL.B., *Adjunct Professor of Law*

Spencer Gordon, A.B., LL.B., *Adjunct Professor of Law*

Conway Peyton Coe, A.B., LL.B., *Adjunct Professor of Law*

Levi Russell Alden, A.M., LL.B., *Adjunct Professor of Law*

George Bowdon Craghill, A.B., LL.B., *Adjunct Professor of Law*

James Ward Morris, A.B., *Adjunct Professor of Law*

James Oliver Murdock, Ph.B., LL.B., *Adjunct Professor of Law*

\*James Forrester Davison, A.B., LL.M., S.J.D., *Associate Professor of Law*

\*John Albert McIntire, A.B., LL.B., *Associate Professor of Law*

\*William Randall Compton, M.B.A., LL.B., J.S.D., *Associate Professor of Law*

\*Chester Charles Ward, B.S., LL.M., *Associate Professor of Law*

†Clarence Altha Miller, LL.M., *Lecturer in Law*

James Robert Kirkland, A.B., LL.M., *Lecturer in Law*

\*James Albert Pike, A.B., LL.B., J.S.D., *Lecturer in Law*

Archibald King, A.M., LL.B., LL.D., *Lecturer in Law*

Justin Lincoln Edgerton, A.B., LL.B., *Lecturer in Law, Clerk of the Moot Court*

William Leigh Ellis, A.B., LL.M., *Lecturer in Law*

### 105 *Civil Procedure* (4)

Function and composition of pleadings, including their relation to proof. Emphasis is upon reforms, as exemplified by modern code provisions and the Federal Rules of Civil Procedure. Clark, *Cases on Pleading and Procedure*, 2d ed. Mon. and Thurs., 6:20 to 8:00 P.M. Benson

### III *Contracts* (4)

Promissory obligation: offer and acceptance, consideration, statute of frauds, formal instruments, rights of third parties, assignments, and joint obligations. Williston, *Cases on Contracts*, 4th ed. Mon. and Thurs., 6:20 to 8:00 P.M. Spaulding

Summer term 1943.

\* On war leave 1941-44.

† On leave of absence 1943-44.

- 123-24 Criminal Law and Procedure (2-2)** Kirkland  
Elements of criminal liability; specific crimes; combinations of persons in crime; criminal procedure. Harbo, Cases and Materials. Wed., 6:20 to 8:00 P.M.
- 129 Judicial Process (4)** Benson  
Introduction to the study of law: development of English courts, procedure, legal profession, and law books; organization of American courts and legal profession; use of law books. Time and place of holding court, venue, service of process, jurisdiction, and a study of judgments (direct and indirect appeals, res judicata, stare decisis, law of the case, and justiciable controversies). Benson and Fryer, Readings on the Study of Law and the American Legal System. Tues. and Fri., 6:20 to 8:00 P.M. Arnold and James, Cases on Trials, Judgments and Appeals.
- 134 Property I (4)** Benson  
Concepts of property, possession and ownership, and of legal relations with respect to chattels and documentary intangibles created by gift, sale, pledge, lien, bequest, etc. Fraser, Cases on Property, Vol. II; Fryer, Readings on Personal Property, 3d ed. Mon. and Thurs., 6:20 to 8:00 P.M.
- 137 Property II (4)** Spaulding  
Real property; introduction; estates, seisin, landlord and tenant; future interests at common law and under the statutes of uses and wills; merger; elementary study of remoteness and powers, adverse possession, prescription, natural rights. Kirkwood, Cases on Property. Tues. and Fri., 6:20 to 8:00 P.M.
- 142 Torts (2)** Van Vleck  
Civil liability for harms to legally protected interests. Thurston and Seavey, Cases on Torts. Tues. and Fri., 6:20 to 8:00 P.M.  
Summer term 1943 (4).
- 203 Agency (2)** McIntire  
Problems of agency in the conduct of business. Steffen, Cases on Agency.  
Summer term 1943.
- 213 Constitutional Law I (4)** Collier  
Historical introduction to American constitutional law; judicial approach and methods in dealing with questions of constitutional law; nature of justiciable controversies; doctrine of the separation of powers; powers of the National Government separately considered; the federal system; relation of the state courts and the federal courts. Dodd, Cases on Constitutional Law, 3d ed. Mon. and Thurs., 6:20 to 8:00 P.M.
- 232 Equity (4)** Spaulding  
Specific performance of contracts; equitable conversion; statute of frauds; mutuality; conditions; defenses; equitable servitudes; powers of an equity court; effect of decrees. Cook, Cases on Equity, 1 volume 3d ed. Mon. and Thurs., 6:20 to 8:00 P.M.



- 241 *Property III* (2) Oppenheim  
Conveyances, rents, easements, profits, licenses, covenants running with the land, and recording. Kirkwood, Cases on Conveyancing. Wed., 6:20 to 8:00 P.M.
- 242 *Evidence* (4) Benson  
Functions of court and jury, witnesses, hearsay, opinion, and circumstantial evidence; proof of authenticity, and contents of writings. Morgan and Macneire, Cases on Evidence, 2d ed. Tues. and Fri., 6:20 to 8:00 P.M.
- 246 *Negotiable Instruments* (2) Oppenheim  
Bills of exchange, promissory notes and checks, especially under the Negotiable Instruments Law. Britton, Cases on Negotiable Instruments. Tues., 6:20 to 8:00 P.M.
- 251 *Quasi Contracts* (2)  
Legal remedies for restitution of benefits obtained or conferred by performance of contract, misrepresentation, mistake, and coercion. Thurston, Cases on Restitution. (Not offered in 1943-44.)
- 254 *Wills* (2) Oppenheim  
Formation and revocation of wills; testate and intestate succession. Mechem and Atkinson, Cases on Wills and Administration, 2d ed. Wed., 6:20 to 8:00 P.M.
- 304 *Administrative Law I* (4) Collier  
Legislative setting for administrative bodies; judicial control of administrative action, public utilities, taxation, alien laws. Federal Trade Commission, workmen's compensation, etc. Frankfurter and Davison, Cases on Administrative Law. Mon. and Thurs., 6:20 to 8:00 P.M.
- 312 *Business Associations I* (4) Spaulding  
Forms of business associations; legal requirements as to contribution of capital; powers and rights of corporations, corporate officials, and shareholders. Frey, Cases on Business Associations. Tues. and Fri., 6:20 to 8:00 P.M.
- 315 *Conflict of Laws* (4) Van Vleck  
Study of cases involving foreign elements; principles of jurisdiction and limitations upon its exercise; procedure, torts, workmen's compensation, contracts, property, family law, administration of estates, business associations. Cleatham, Dowling, Goodrich, and Griswold, Cases on Conflict of Laws, 2d ed. Tues. and Fri., 6:20 to 8:00 P.M.
- 321-22 *Current Decisions* (2-2) Oppenheim  
Required of, and limited to, members of the student staff of the Law Review.
- 326 *Federal Jurisdiction* (2) Collier  
Constitutional origins and powers of federal courts; sources of law applicable to them; business and extent of jurisdiction of federal courts. Case book to be announced. Wed., 6:20 to 8:00 P.M.
- 332 *Labor Law* (2) Spaulding  
Legality of collective labor action, of ends sought and means used, strike, picketing, boycott, trade agreements; labor injunctions, scope of federal jurisdiction. Landis, Cases on Labor Law.

- 333 *Legislation* (2)  
A study of the problems and principles of legislation. (Not offered in 1943-44.)
- 335-36 *Moot Court* (2-2) Gordon, Craighill, Morris, Edgerton  
Open only to students who have completed fifty credit hours. Prerequisite: Law 105 and 242. Wed., 6:20 to 8:00 P.M.
- 345-46 *Patent Law* (2-2) Sutton  
Substantive patent law; patentability; revision, use, and enforcement of patents; Patent Office practice; Rule of Practice; appeal and interference procedure. Mon., 6:20 to 8:00 P.M.
- 349-50 *Patent Moot Court* (2-2) Coe  
This course may be elected instead of Law 335-36 to satisfy the Moot Court requirement. Both subjects may not be counted toward a degree. Wed., 6:20 to 8:00 P.M.
- 351 *Domestic Relations* (4) Spaulding  
Marriage, attachment, and divorce; rights of husband and wife; rights of parent and child; infancy; conflict of laws involving problems of marriage evasion and migratory divorce. Madden and Compton, Cases on Domestic Relations.  
Summer term 1943.
- 353 *Public Utilities* (2) Collier  
Limits of regulation of businesses affected with public interest; ascertainment of value of property used for the public service and the fixing of adequate rates of return. Robinson, Cases on Public Utilities Regulation. Wed., 6:20 to 8:00 P.M.
- 357 *Sales* (2) Oppenheim  
Williston and McCurdy, Cases on Sales. Tues., 6:20 to 8:00 P.M.
- 363 *Security Transactions* (4) Benson  
Security interests in real and personal property, their creation, transfer, enforcement, and extinguishment, together with security problems in the fields of suretyship and bankruptcy. Sturges, Cases on Credit Transactions, 2d ed.  
Summer term 1943.
- 371-72 *Taxation* (2-2) Collier  
Emphasis on the federal estate tax and the federal income tax. Attention given state inheritance and income taxes. Problem of jurisdiction to tax, construction of tax statutes, methods of judicial review of administrative actions in the tax field, modern excise taxes on business concerns. Magill and Maguire, Cases on Taxation, 1941 ed. Fri., 6:20 to 8:00 P.M.
- 376 *Trade Regulation I* (4) Oppenheim  
Unfair trade practices, combination and monopoly at common law and under various statutes; trade-marks; business torts; Sherman Antitrust Act; Federal Trade Commission and Clayton Acts; marketing, price and patent practices; Fair Trade Acts; mergers; trade associations; remedies. Oppenheim, Cases on Trade Regulation.  
Summer term 1943.

382 *Trusts* (4)

Nature, creation, elements, administration, termination, modification of trusts; charitable, resulting, construction trusts; liabilities of and to third persons; transfer of beneficiary's interest. Scott, *Cases on Trusts*, 3d ed.

Summer term 1943.

Mol

383 *War Law: Military Law* (1)

Mon., 6:20 to 7:10 P.M.

King

387 *War Law: War Contracts* (1)

Mon., 7:10 to 8:00 P.M.

Ellis

404 *Administrative Law II* (4)

Research seminar course in special problems, including the study of specific administrative agencies, federal or state. (Not offered in 1943-44.)

405 *Admiralty* (2)

Federal and state jurisdiction; jurisdiction over waters, craft, contracts, torts, crimes, in equitable matters, etc.; laws applicable to maritime workers and maritime liens. Sayre, *Cases on the Law of Admiralty*. Mon., 6:20 to 8:00 P.M.

Alden

411 *Business Associations II* (4)

Seminar: study of the historical background and functioning of the statutes involved in the work of the Securities and Exchange Commission. (Not offered in 1943-44.)

416 *Comparative Law* (2)

Historical and comparative study of some of the institutions and principles of the civil law (law of South and Central America and most of the Continent of Europe) compared with those of the common law; the influence of the former upon the latter. Text to be announced. Mon., 6:20 to 8:00 P.M.

Murdock

421 *Constitutional Law II* (4)

Research seminar in contemporary problems in constitutional law; special emphasis on interstate-commerce cases and due process of law. (Not offered in 1943-44.)

426 *Government Corporations and Instrumentalities* (2)

Municipal corporations: organization, powers, functions, and legal relations of local governmental units. Federal corporate agencies: organization, powers, functions, and legal relations of functional governmental units separately incorporated. A research seminar. Tues., 6:20 to 8:00 P.M.

McIntire

431 *International Law* (2)

Customary and treaty rights and duties of states; diplomatic and consular agents; treaty interpretation; nationality laws; international courts; claims procedure; war; neutrality. Hudson, *Cases on International Law*, 2d ed. Tues., 6:20 to 8:00 P.M.

Murdock

434 *Interstate Commerce Commission Law and Procedure* (2)

Interstate Commerce Act; the Interstate Commerce Commission: practice and procedure before the Commission. McLean, Cases and Materials on I.C.C. Law and Procedure. (Not offered in 1943-44.)

435 *Jurisprudence* (2)

History of jurisprudence; school of thought, particularly the nineteenth century school; sociological jurisprudence; theory of justice; the nature of law, law and morals; law and the state; the scope and subject matter of law; justice and theory of law; the traditional element; analysis of general legal conceptions. (Not offered in 1943-44.)

438 *Labor Relations Regulation* (2)

Law of relations between workers and management under the National Labor Relations Act. World, Cases on Labor Relations Regulation. (Not offered in 1943-44.)

441 *Municipal Corporations* (2)

McIntire

Municipal corporations; constitution, powers, functions, and local regulations of local governmental units. Loomis and McIntire, Cases on Municipal Corporations. Treatise, 6 2d to 8th rev. ed.

452 *Trade Regulation II* (4)

A research, seminar course in specific problems of trade regulation. (Not offered in 1943-44.)



## MATHEMATICS

James Henry Taylor, Ph.D., *Professor of Mathematics, Executive Officer*

Francis Edgar Johnston, Ph.D., *Professor of Mathematics*

Florence Marie Mears, Ph.D., *Associate Professor of Mathematics*

Earl Larkin Williams, A.M., *Associate in Mathematics*

*Minimum requirements for the major.*—Fifteen credit hours of mathematics beyond calculus, i.e., of approved second- and third-group courses.

### FIRST GROUP

#### 11 *Introductory College Mathematics\** (3) The Staff

Rectangular coordinates; trigonometric functions; trigonometric identities; exponents and logarithms; solution of triangles; linear equations; determinants of the third order; quadratic equations; the factor theorem and its use in equations of higher degree; mathematical induction and the binomial theorem; permutations and combinations; the complex-number system. Prerequisite: one year each of high school algebra and high school geometry. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Mon., Wed., and Fri., 11:10 A.M.; section C: Mon., Wed., and Fri., 6:10 P.M.; section D: Mon., Wed., and Fri., 7:10 P.M.; section E: Tues. and Thurs., 6:10 to 7:35 P.M.; section F: Tues. and Thurs., 7:35 to 8:50 P.M.

Mathematics 11x—same as Mathematics 11, but offered winter term. Section A: Tues., Thurs., and Sat., 1:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.; section C: Tues. and Thurs., 7:25 to 8:50 P.M.

Summer term 1943.

#### 12 *Plane Analytic Geometry* (3) The Staff

Prerequisite: Mathematics 11, or two years of high school algebra, one year of high school geometry, and one-half year of high school trigonometry. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Mon., Wed., and Fri., 11:10 A.M.; section C: Mon., Wed., and Fri., 6:10 P.M.; section D: Mon., Wed., and Fri., 7:10 P.M.; section E: Tues. and Thurs., 6:10 to 7:25 P.M.

Mathematics 12x—same as Mathematics 12, but offered fall term. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Mon., Wed., and Fri., 11:10 A.M.; section C: Mon., Wed., and Fri., 6:10 P.M.; section D: Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943 (Mears).

#### 19 *Differential Calculus* (3) The Staff

Prerequisite: Mathematics 12. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Tues. and Thurs., 6:10 to 7:25 P.M.; section C: Tues. and Thurs., 7:35 to 8:50 P.M.

\* Mathematics 11 (Introductory college mathematics) is not available for college credit if the student whose previous training in mathematics meets the prerequisites for Mathematics 12 (Plane Analytic Geometry).

Mathematics 191—same as Mathematics 19, but offered winter term. Section A: Mon., Wed., and Fri., 9:15 A.M. to 12:00 P.M.; section B: Mon., Wed., and Fri., 11:15 A.M. to 1:00 P.M.; section C: Mon., Wed., and Fri., 6:15 P.M. to 7:45 P.M.; section D: Mon., Wed., and Fri., 7:45 P.M. to 9:15 P.M.

Summer term 1943 (Johnston, W.)

2- *Integral Calculus\** (3)

The Staff

Prerequisite: Mathematics 19. Section A: Tues., Thurs., and Sat., 9:15 A.M. to 12:00 P.M.; section B: Tues. and Thurs., 1:15 to 7:45 P.M.; section C: Tues. and Thurs., 7:45 to 8:50 P.M.

Mathematics 201—same as Mathematics 2, but offered fall term. Section A: Tues., Thurs., and Sat., 1:15 A.M. to 1:45 P.M.; section B: Mon., Wed., and Fri., 7:15 P.M.

Summer term 1943 (Mears)

SECOND GRADE

102 *Fundamental Concepts of Mathematics* (3)  
(Not offered in 1943-44.)

123 *Theory of Equations* (3)  
(Not offered in 1943-44.)

125 *Advanced Algebra* (3)  
Tues. and Thurs., 6:10 to 7:25 P.M.

Mears

126 *Advanced Analytic Geometry* (3)  
(Not offered in 1943-44.)

132 *Differential Equations* (3)

The Staff

Mon., Wed., and Fri., 7:15 P.M.

Mathematics 132x—same as Mathematics 132 but offered fall term. Mon., Wed., and Fri., 6:15 P.M.

Summer term 1943 (Johnston)

134 *Introduction to Boundary Value Problems* (3) Taylor  
Prerequisite: Mathematics 132. Mon., Wed., and Fri., 6:15 P.M.

†135-36 *Projective Geometry* (2-2)  
(Not offered in 1943-44.)

138 *Advanced Calculus* (3)  
Tues. and Thurs., 6:15 to 7:25 P.M.

Mears

142 *Introduction to Infinite Series* (3)  
Summer term 1943.

167 *Fourier Series and Spherical Harmonics* (3)  
Prerequisite: Mathematics 132. (Not offered in 1943-44.)

171 *Vector Analysis* (3)  
Mon., Wed., and Fri., 7:10 P.M.

Taylor

\* Mathematics 201 is prerequisite for all second grade courses.

## THIRD GROUP

- 220 *Theory of Numbers* (3)  
(Not offered in 1943-44.)
- †237-38 *Theory of Functions* (3-3)  
Mon., Wed., and Fri., 6:10 P.M.
- 249 *Ordinary Differential Equations* (3)  
(Not offered in 1943-44.)
- 250 *Integral Equations* (3)  
(Not offered in 1943-44.)
- †255-56 *Differential Geometry* (2-2)  
(Not offered in 1943-44.)
- 257 *Theory of Groups* (3)  
(Not offered in 1943-44.)
- †265-66 *Modern Algebra* (3-3)  
(Not offered in 1943-44.)
- †267-68 *Calculus of Variations* (2-2)  
(Not offered in 1943-44.)
- 270 *Tensor Analysis* (3)  
(Not offered in 1943-44.)
- 271 *Riemannian Geometry* (3)  
(Not offered in 1943-44.)
- 275 *Theory of the Potential* (5)  
(Not offered in 1943-44.)
- 277 *Partial Differential Equations* (3)  
(Not offered in 1943-44.)
- 297-98 *Reading and Research* (3-3)  
Hours to be arranged.
- 299-300 *Thesis* (3-3)

Johnston

Johnston

Taylor

The Staff

The Staff

## MECHANICAL ENGINEERING

- \*Arthur Frederick Johnson, M.E., Ph.D., *Professor of Mechanical Engineering*  
 Frederick Morris Feiker, B.S. in E.E., D.Eng., *Professor of Engineering Administration*  
 Benjamin Carpenter Cruickshanks, B.S. in M.E., *Professor of Mechanical Engineering, Acting Executive Officer*  
 Garbis Keulegan, Ph.D., *Professorial Lecturer in Mechanical Engineering*  
 Robert Gay Trumbull, B.S. in C.E., *Associate Professor of Mechanical Engineering*  
 \*Howard Henry Koster, M.S. in M.E., *Assistant Professor of Mechanical Engineering*  
 Martin Alexander Mason, B.S. in Eng., Dr. Ing., *Lecturer in Mechanical Engineering*  
 Harry Joseph Keegan, B.M.E., *Lecturer in Mechanical Engineering*  
 Rudolph Michel, M.S. in M.E., *Lecturer in Mechanical Engineering*  
 Paul Guthrie Tomalin, *Lecturer on Naval Architecture*  
 John Brewster Willis, B.S. in M.E., *Associate in Naval Architecture*

*Minimum requirements for the major—See pages 110 and 113.*  
*Summer term 1943.—All even-numbered courses will be offered except M.E. 10 and 12.*

### FIRST GROUP

- 1 *Engineering Survey and Orientation* (1) Cruickshanks and Staff  
 Open to freshmen only. Section A: Mon., 12:40 P.M.; section B: Tues., 7:10 P.M.
- 3 *Mechanical Drawing* (2) Trumbull  
 Drafting-room fee, \$3. Section A: Mon. and Fri., 1:40 to 4:30 P.M.; section B: Mon. and Fri., 8:10 to 11:00 P.M.
- 4 *Descriptive Geometry* (2) Trumbull  
 Drafting-room fee, \$3. Section A: Mon. and Fri., 1:40 to 4:30 P.M.; section B: Mon. and Fri., 8:10 to 11:00 P.M.
- 5 *Introductory Naval Architecture* (3) Willis  
 Naval architecture, structures, and arrangement of hull structure, equipment, and machinery for merchant vessels. Lectures supplemented by visits to shipyards. Mon., Wed., and Fri., 6:10 P.M.
- 7 *Machine Drawing* (2) Trumbull  
 Preliminary Mechanical Engineering 3 and 4. Drafting-room fee, \$3. Section A: Mon. and Fri., 1:40 to 4:30 P.M.; section B: Mon. and Fri., 8:10 to 11:00 P.M.

\* On war leave 1943-44.



- 8 *Mechanism Drawing (2)* Trumbull  
Prerequisite: Mechanical Engineering 3, 4, and 13. Prerequisite or concurrent registration: Mechanical Engineering 14. Drafting-room fee, \$3. Section A: Mon. and Fri., 1:40 to 4:30 P.M.; section B: Mon. and Fri., 8:10 to 11:00 P.M.
- 9-10 *Ship Drafting (2-2)*  
Fairing of lines; displacement, stability curves, midship section, general arrangements and structural detail plans, machinery details. Prerequisite or concurrent registration: Mechanical Engineering 15. Drafting-room fee, \$3 a term. Tues. and Thurs., 8:10 to 11:00 P.M.  
Mechanical Engineering 10 not offered 1943 summer term.
- 13-14 *Mechanism (2-2)* Trumbull  
Prerequisite: Mathematics 12. Prerequisite or concurrent registration: Mathematics 19. Section A: Tues. and Thurs., 12:10 P.M.; section B: Tues. and Thurs., 6:10 P.M.
- 15-16 *Elementary Ship Calculations (2-2)* Johnson, W.  
Form characteristics, detailed weights, displacement, transverse and longitudinal equilibrium, launching. Prerequisite: Mechanical Engineering 5. Tues. and Thurs., 6:10 P.M.
- SECOND GROUP
- 101-2 *Advanced Ship Calculations (2-2)* Tomalin  
Stabilizing model basin practice, powering, steering, launching, strength, floodability, vibrations. Prerequisite: Mechanical Engineering 16. Tues. and Thurs., 7:10 P.M.
- 103-4 *Ship Design (2-2)* Johnson  
Prerequisite: Mechanical Engineering 10, 16; prerequisite or concurrent registration: Mechanical Engineering 117. Drafting-room fee, \$3 a term. Tues. and Thurs., 8:10 to 11:00 P.M.
- 111-12 *Thermodynamics (3-3)* Cruickshank  
With introductory study of laws of heat transmission. Prerequisite or concurrent registration: Mathematics 20. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.
- 115-16 *Mechanical Laboratory (2-2)* Cruickshank  
Calibration of instruments; calimetry; testing of prime movers, auxiliaries, and combustion engines. Eight-hour boiler test required. Prerequisite: Mechanical Engineering 13-14 and 111-12. Laboratory fee, \$6 a term. Section A: Mon. and Fri., 1:10 P.M.; section B: Mon. and Fri., 8:10 P.M.
- 117-18 *Marine Engines and Auxiliaries (2-2)* Johnson  
Details, arrangements and performance of steam unit, steam turbine and Diesel propelling plants. Prerequisite or concurrent registration: Mechanical Engineering 5, 13-14, and 111-12. Tues. and Thurs., 7:10 P.M.
- 126 *Methods of Manufacture (2)* Koster  
Fixtures, gauging, tools, costs. Prerequisite: Mechanical Engineering 8 and 14; Civil Engineering 26. Tues. and Thurs., 7:10 P.M. (Not offered 1943 summer term.)

- 127-28 *Machine Design* (2-2) Keegan  
With the analysis lecture. Prerequisite: Mechanical Engineering 112 and 126; Civil Engineering 25, 123, 136, and 141. Drafting-room fee, \$3 a term. Tues. and Thurs., 8:12 to 11:00 P.M.
- 129-30 *Power Plants* (3-3) Cruickshanks  
Study of design, layout, installation, and operation of power plants and equipment. Prerequisite: Mechanical Engineering 112. Mon., Wed., and Fri., 6:10 P.M.
- 131-32 *Heating, Ventilating, Air Conditioning, and Refrigeration* (2-2) \_\_\_\_\_  
Prerequisite: Mechanical Engineering 112. Tues. and Thurs., 6:10 P.M. (Not offered fall and winter terms 1943-44.)
- 133 *Combustion Engines* (2) Koster  
Prerequisite: Mechanical Engineering 112; Civil Engineering 123 and 136; Electrical Engineering 1. Section A: Tues. and Thurs., 11:10 A.M.; Section B: Tues. and Thurs., 7:12 P.M.
- 139 *Fluid Dynamics* (3) Keulegan  
The theories of hydro- and aero-mechanics as influenced by density, viscosity, and turbulence. Prerequisite: Mechanical Engineering 112; Civil Engineering 140. Mon., Wed., and Fri., 7:10 P.M.
- 140 *Dynamics of Machinery* (3) Michel  
Inertia effects, balancing, vibration phenomena. Prerequisite: Mechanical Engineering 115; Civil Engineering 123 and 136. Mon., Wed., and Fri., 7:10 P.M.
- 141-42 *Management Problems* (2-2) Feiker  
The leading and training of men. Prerequisite: Economics 1-2. Tues. and Thurs., 7:12 P.M.
- 145-46 *Management Controls* (2-2) \_\_\_\_\_  
Prerequisite: Economics 1-2; Business Administration 101-2. Hours to be arranged.
- 147 *Industrial Labor Relations* (2) \_\_\_\_\_  
Prerequisite: Mechanical Engineering 141-42. Tues. and Thurs., 6:10 P.M.
- 189-90 *Proseminar in Mechanical Engineering* (1-1) Mason  
Wed., 8:10 P.M.

## MEDICINE

Walter Andrew Bloedorn, A.M., M.D., *Professor of Medicine, Executive Officer*

Coursen Baxter Conklin, A.M., M.D., *Clinical Professor of Medicine*

Charles Robert Lee Halle, A.B., M.D., *Clinical Professor of Medicine*

Paul Frederick Dickens, M.D., *Clinical Professor of Medicine*

Harry Filmore Dowling, A.B., M.D., *Clinical Professor of Medicine*

Charles Powell Cake, M.D., *Adjunct Clinical Professor of Medicine*

Robert Port Herwick, Ph.D., M.D., LL.B., *Adjunct Clinical Professor of Medicine*

Frank Adelbert Hornaday, M.S., M.D., *Associate Clinical Professor of Medicine*

Walter Kendall Myers, B.S., M.D., *Assistant Clinical Professor of Medicine*

John Alton Reed, A.B., M.D., *Assistant Clinical Professor of Medicine*

Clayton Bernard Ethridge, M.D., *Assistant Clinical Professor of Medicine*

Watson William Eldridge, Jr., M.D., *Associate in Medicine*

Maurice Protas, A.B., M.D., *Associate in Medicine*

Bernard Lauriston Hardin, Jr., A.B., M.D., *Associate in Medicine*

A. Fife Heath, M.D., *Associate in Medicine*

Bernard Walter Leonard, B.S., M.D., *Associate in Medicine*

Benjamin Manchester, M.D., *Associate in Medicine*

Malcolm Foster Lent, M.D., *Associate in Medicine*

Nicholas Athanasios Mandelos, M.D., *Clinical Instructor in Medicine*

Leo T. Brown, M.D., *Clinical Instructor in Medicine*

Richard Bernard Castell, A.B., M.D., *Clinical Instructor in Medicine*

George Paul Lemeshewsky, A.B., M.D., *Clinical Instructor in Medicine*

Charles Troll Carroll, A.B., M.D., *Clinical Instructor in Medicine*

John Ellsworth Everett, A.B., M.D., *Clinical Instructor in Medicine*

Paul Abraham Lightman, M.D., *Clinical Instructor in Medicine*

John Bayne Marbury, M.D., *Clinical Instructor in Medicine*

Gilbert Britt Rude, M.D., *Clinical Instructor in Medicine*

Charles Noble Lewis, B.S., M.D., *Clinical Instructor in Medicine*

Simon Weiner, B.S., M.D., *Clinical Instructor in Medicine*

Louis Ross, M.D., *Clinical Instructor in Medicine*

Irving Wolfe Winik, M.D., *Clinical Instructor in Medicine*

William Kirkman Billingsley, Jr., A.B., M.D., *Clinical Instructor in Medicine*

Carl Calvin Dauer, A.B., M.D., M.P.H., *Clinical Instructor in Medicine*

Charles Randolph Hughes, Jr., M.D., *Clinical Instructor in Medicine*

John Edward Morris, B.S., M.D., *Clinical Instructor in Medicine*



- Russell Crandle Payne, A.B., M.D., *Clinical Instructor in Medicine*  
 Lawrence Elias Putnam, A.B., M.D., *Clinical Instructor in Medicine*  
 Ruth Benedict, A.B., M.D., *Clinical Instructor in Medicine*  
 James Theodore Burns, M.D., *Clinical Instructor in Medicine*  
 Saiyude Dithakar Bhakdi, A.B., M.D., *Clinical Instructor in Medicine*  
 Frederic Dunbar Chapman, A.B., M.D.C.M., *Clinical Instructor in Medicine*  
 Meredith Benjamin Hesdorffer, B.S., M.D., *Clinical Instructor in Medicine*  
 Irvin Kerlan, B.S., M.D., C.P.H., *Clinical Instructor in Medicine*  
 Alan Frank Kreglow, B.S., M.D., *Clinical Instructor in Medicine*  
 Leon Schwartz, A.B., M.D., M.P.H., *Clinical Instructor in Medicine*  
 Robert George Taylor, B.S., M.D., *Clinical Instructor in Medicine*  
 Lawrence Jay Thomas, B.S., M.D., *Clinical Instructor in Medicine*  
 Virginia Patterson Beelar, A.B., M.D., *Clinical Instructor in Medicine*  
 William Duvall Claudy, A.B., M.D., *Clinical Instructor in Medicine*

*Locker fee.*—A fee of \$1 a term is charged for the use (rental) of a locker.

- 126 *History of Medicine* Halley  
 One hour a week
- 241-42 *Physical Diagnosis* Conklin and Staff  
 Demonstrations and practice on the normal and abnormal subject; designed to cover the entire subject of physical diagnosis.
- 244 *General Medicine* Bloedorn, Halley  
 Lectures covering general aspects of all phases of medical disease, and including therapeutics. Three hours a week.
- 312 *Radiology and Radiotherapy* The Staff  
 One hour a week.
- 324 *Clinical Physiology* Dickens  
 Lectures and clinics for the correlation of preclinical and laboratory studies of physiology with altered function as observed in clinic and ward. One hour a week.
- 325-26 *Clinical Clerkship* Dowling and Staff  
 Individual case work under strict supervision (student's histories generally accepted as hospital records). Emergency and Garinger hospitals.
- 327-28 *Clinical Pathological Conference* Bloedorn, Choisser  
 Required in the third and fourth years. Correlation of clinical and post-mortem findings, detailed case descriptions from the clinical point of view, illustrated by thorough demonstrations, grossly and with lantern slides, of post-mortem findings. One hour a week.
- 349-50 *Grand Ward Rounds* Bloedorn and Staff  
 Conducted weekly at Garinger Hospital. Cases are presented at this conference by members of the Resident Staff and Visiting Staff.



- 416 *Tropical Medicine* The Staff  
Lectures, laboratory exercises, museum, and clinical demonstrations designed to familiarize the student with problems of tropical medicine, particularly as applied to the present emergency. Two hours a week.
- 417-18 *Physiotherapy* Eldridge  
Lectures and demonstrations of the fundamentals of physical treatment and their applications to general medical disease. St. Elizabeth's Hospital.
- 420 *Medical Jurisprudence* Eldridge  
Lectures on the legal and ethical rights of physician, and on the legal problems with which the physician is brought into contact. One hour a week for eleven weeks.
- 421-22 *Dispensary Clinics* The Staff  
Thorough study of individual cases subsequently reviewed in detail by the Staff. The University and Emergency hospitals.
- 424 *Clinics* Bleedorn and Staff  
Etiology, diagnosis, and treatment of the usual and more rare diseases, with special emphasis on differential diagnosis and the demonstration of clinical abnormalities found in various morbid processes. Medical School.
- 425-26 *Clinical Clerkship* Dickens, Haller  
Individual case work under strict supervision (student's histories generally accepted as hospital records). The University and Emergency hospitals.
- 440 *Clinical Pharmacology* Herwick  
Brief review in materia medica, prescription writing, and the fundamentals of therapeutic discussion of the pharmacological basis of therapeutics.
- 498 *Professional Aspects of Military Medicine* The Staff  
Study of problems arising in civilian, industrial, and military medicine peculiar to the present emergency; lectures by members of the staff and specialists of the Army, the Navy, and the United States Public Health Service on duty in Washington. Two hours a week.

## MILITARY SCIENCE AND TACTICS

Philip Weatherly Huntington M.D., Colonel, Medical Corps, United States Army, *Professor of Military Science and Tactics*

Clarence Quinter Bunderman, Sergeant, United States Army, *Instructor in Military Tactics*

129-30 *Basic Course (First Year)* Huntington  
Local basis of national defense; organization of the Army and the Medical Department; military law and courts-martial; customs of the service; map reading; military administration.

247-48 *Basic Course (Second Year)* Huntington  
Organization and operation of the Medical Department with the Army; combat orders and problems; map exercises; tactical service of Infantry and Cavalry divisions.

329-30 *Advanced Course (First Year)\** Huntington  
Mess management; military preventive medicine; sanitation; chemical warfare, tactics, defense, and medical aspects.

429-30 *Advanced Course (Second Year)\** Huntington  
Military history; leadership; diseases peculiar to war; organization and equipment within the division; mobilization; property accounting.

\* Students at the first and second year of the advanced course are selected from those who have satisfactorily completed the basic course.

## NEUROLOGY

Walter Freeman, Ph.D., M.D., *Professor of Neurology, Executive Officer*

James Winston Watts, B.S., M.D., *Clinical Professor of Neurosurgery*

Alexander Simon, A.B., M.D., *Associate in Neurology*

Robert Henry Groh, B.S., M.D., *Clinical Instructor in Neurology*

Mortimer Ostow, A.M., M.D., *Clinical Instructor in Neurology*

### 249 *Neurology (elective)* Freeman

Methods of study of the nervous system. Gross and microscopic dissection, embryology, comparative anatomy, stimulation and excitation, human pathology, etc. Laboratory demonstrations. One hour a week.

### 250 *Neuropathology (elective)* Freeman

Pathology of the nervous system with laboratory demonstrations. One hour a week.

### 331 *Neurology* Watts, Simon, Ostow

Systematic lectures with lantern slides illustrating the chief neurologic syndromes and their anatomic bases. One hour a week.

### 333-34 *Neurology Clinic (elective)* Freeman and Staff

May be elected in the third or fourth year. Neurological outpatient clinic. Consultation of staff on anatomic cases, demonstration of diagnostic procedures, disposition of neuropsychiatric cases. Three hours a week.

### 335-36 *Neurologic Conference* Freeman and Staff

Weekly staff conference at Gallinger Municipal Hospital covering interesting problems from the Neurologic Service. One fourth of the class for one and one-half hours a week.

### 383-84 *Ward Neurology* Cris

Daily rounds and frequent assignments at Gallinger Municipal Hospital Neurologic Service. Each student works up a number of cases during his service. One eighth of the class for four weeks.

### 431 *Neurosurgery (elective)* Watts

Lectures and clinical demonstrations in surgery of the brain, spinal cord and peripheral nerves. Emphasis is laid upon fundamental principles upon the possibilities of surgery in the relief of symptoms. One hour a week.

### 433-34 *Clinical Neurology* Freeman

Lectures and demonstrations of patients illustrating the diagnosis and treatment of nervous disorders. Material is available at St. Elizabeth's.

Hospital illustrative of the more common disorders and some of the unusual syndromes. One hour a week.

- 435-36 *Neurologic Examinations* Freeman and Staff  
Practical instruction in the examination of patients presenting nervous diseases. Detailed examination of six patients is required of each student. St. Elizabeths Hospital. One fourth of the class, two hours a week.



## OBSTETRICS AND GYNECOLOGY

- Howard Francis Kane, A.B., M.D., *Professor of Obstetrics and Gynecology, Executive Officer*
- Radford Brown, M.D., *Professor of Obstetrics and Gynecology*
- Elijah White Titus, Phar.D., M.D., *Clinical Professor of Obstetrics and Gynecology*
- Jacob Kotz, M.D., *Clinical Professor of Obstetrics and Gynecology*
- Henry Lauran Darner, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*
- Herbert Percy Ramsey, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*
- John Louis Parks, M.S., M.D., *Adjunct Clinical Professor of Obstetrics and Gynecology*
- William Preston Haynes, A.B., M.D., *Associate in Obstetrics and Gynecology*
- George Nordlinger, A.B., M.D., *Associate in Obstetrics and Gynecology*
- William Raymond Thomas, M.D., *Associate in Obstetrics and Gynecology*
- Joseph Harris, A.B., M.D., *Associate in Obstetrics and Gynecology*
- Laurence Lee Cokerille, M.D., *Associate in Obstetrics and Gynecology*
- Samuel Mayer Dodek, A.M., M.D., *Associate in Obstetrics and Gynecology*
- Bernard Notes, M.D., *Associate in Obstetrics and Gynecology*
- Russell Jon Jansen, M.D., *Associate in Obstetrics and Gynecology*
- Helen Gladys Kain, B.S., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Esther Alsclvia Nathanson, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Katherine Elizabeth Parker, A.M., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Harry Samuel Douglas, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Howard Pope Parker, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Roger O'Donnell, Jr., A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- William Dandridge Terrell, Jr., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- James Albert Dusbabek, M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Barton Winters Richwine, M.D., *Clinical Instructor in Obstetrics and Gynecology*

Julius Robert Epstein, M.D., *Clinical Instructor in Obstetrics and Gynecology*

Morton Selwyn Kaufman, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*

Floyd Sterling Rogers, M.D., *Clinical Instructor in Obstetrics and Gynecology*

Samuel Hazen Shea, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*

Clarence Kendall Fraser, Ph.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*

253-54 *Pregnancy, Normal and Abnormal* Dodek, O'Donnell  
Lectures and recitations on the physiology and management of pregnancy and its complications. One hour a week.

337-38 *Labor, Normal and Abnormal* Kane, Nordlinger  
Lectures, recitations, and demonstrations on the mechanism and course of labor and its complications. Two hours a week.

344 *Gynecology* Brown  
Lectures on the principles of gynecological surgery. One hour a week for seven weeks.

345-46 *Manikin Demonstrations* Harris  
The mechanism of labor and various types of operative delivery demonstrated to sections of the class. One hour a week.

439 *Gynecological Pathology (elective)* Brown  
Lectures on the essentials of gynecological pathology, and demonstrations and study of gross and microscopic material discussed in the lectures. One hour a week.

441-42 *Clinical Obstetrics* The Staff  
Observation of, and participation in, the work of the pre- and post-natal clinics, on the wards, and in the delivery rooms of the University, Gallinger, Columbia, and Garfield hospitals.

443-44 *Clinical Gynecology* The Staff  
Observation of, and participation in, the work at the out-patient clinics, on the wards, and in the operating rooms of the University, Gallinger, Columbia, and Garfield hospitals.

445 *Female Endocrinology and Operative Gynecology* Kotz, Darner  
Lectures on the physiology and pathology of the endocrine system in women and on the principles of gynecological surgery. One hour a week.

## OPHTHALMOLOGY

William Thornwall Davis, M.D., *Professor of Ophthalmology, Executive Officer*

Ernest Alfred Watson Sheppard, M.D.C.M., *Associate Clinical Professor of Ophthalmology*

Edgar Leonard Goodman, M.D., M.M.S., *Assistant Clinical Professor of Ophthalmology*

Ronald Atmore Cox, A.B., M.D., *Assistant Clinical Professor of Ophthalmology*

Frank Duncan Costenbader, B.S., M.D., *Associate in Ophthalmology*

Walter Joseph Romejko, B.S., M.D., *Clinical Instructor in Ophthalmology*

Sterling Bockoven, M.D., *Clinical Instructor in Ophthalmology*

Carmon Robert Naples, B.S., M.D., *Clinical Instructor in Ophthalmology*

Richard Wallace Wilkinson, A.B., M.S., M.D., *Clinical Instructor in Ophthalmology*

### 351-52 *Ophthalmology*

Davis and Staff

A lecture course presenting the principles of ophthalmology, with special reference to topics of importance to the general practitioner. One hour a week for twenty weeks.

### 447 *Clinic*

Davis and Staff

Intensive training in diseases of the eye; etiology, diagnosis, and treatment in their application to clinical cases. Episcopal Hospital. Three hours twice a week.

## OTO-RHINO-LARYNGOLOGY

- Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology*  
*Executive Officer*  
 William Herndon Jenkins, M.D., *Clinical Professor of Oto-rhino-laryngology*  
 Leroy Lee Sawyer, Jr., A.B., M.D., *Assistant Clinical Professor of Oto-rhino-laryngology*  
 David Davis, A.B., M.D., *Associate in Oto-rhino-laryngology*  
 Don R. Johnson, I.L.B., M.D., *Associate in Oto-rhino-laryngology*  
 Aubrey David Fischer, M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Jeter Carroll Bradley, M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Lyman Brooke Tibbetts, Ph.D., M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Joel Norton Novick, M.S., M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 John Gordon Bell, M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Catharine Birch, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Homer King Vann, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*

451 *Oto-rhino-laryngology* Moffett, Jenkins  
 Lectures and demonstrations on anatomy, physiology, and diseases of the ear, nose, and throat, bronchoscopy and esophagoscopy. Two hours a week.

454 *Bronchoscopy* Davis  
 A series of lectures on the fundamental principles and the use of instruments, including both the bronchoscope and esophagoscope. One hour a week for eight weeks.

456 *Clinic* The Staff  
 Practical clinical instruction in the diagnosis and treatment of diseases of the ear, nose, and throat. Episcopal Hospital. One and one-half hours twice a week.



## PATHOLOGY

Roger Morrison Choisser, B.S., M.D., *Professor of Pathology, Executive Officer*

Thomas Martin Peery, A.B., M.D., *Associate Professor of Pathology*

Pearl Holly, M.S., M.D., *Associate in Pathology*

Eugene Leonard Lozner, A.B., M.D., *Associate in Pathology*

Richard Edward Kelso, M.D., *Instructor in Pathology*

**236 Clinical Pathology** Choisser and Staff  
Lectures and laboratory work covering aspects of laboratory diagnosis of disease, including a study of urinalysis, blood counting, the anemia leukemias, and other blood dyscrasias. Examination of exudates, transudates, stomach contents, spinal fluids, and stools also emphasized. Three hours a week.

**259-60 Pathology** Choisser, Peery  
Malformations, inflammations, degenerations, and neoplasms; special study of the organ and specific diseases. The laboratory work consists of the gross and microscopic study of diseased tissue. Necropsies are held regularly at the University and Municipal hospitals.

**307 Necropsy (elective)** The Staff  
Students assist in the performance of necropsies. Final gross specimens and microscopic sections from each case are presented at weekly conferences. Current literature relative to cases is reviewed and presented by the student.

**327-28 Clinical Pathological Conference** Choisser, Blood  
Required in the third and fourth years. Case histories are presented and discussed by members of the staff and student body, necropsy and clinical findings are compared, and gross and microscopic specimens examined. One hour a week.

**460 Research** Choisser  
Hours and credits to be arranged

**461 Tumors** Choisser and Staff  
Sixteen lectures and laboratory periods covering experimental production of tumors by means of carcinogens. Microscopic diagnosis of tumors is stressed. One hour a week.

## PEDIATRICS

- Harry Hampton Donnally, A.M., M.D., *Professor of Pediatrics, Executive Officer*
- Preston Alexander McLendon, B.S., M.D., *Clinical Professor of Pediatrics*
- Charles Aurelius Schutz, M.D., *Clinical Professor of Pediatrics*
- Margaret Mary Nicholson, A.B., M.D., *Clinical Professor of Pediatrics*
- Edward Lewis, M.D., *Clinical Professor of Pediatrics*
- Lewis Kaigler Sweet, A.B., M.D., *Adjunct Clinical Professor of Pediatrics*
- Elizabeth Emery Chickering, A.B., M.D., *Associate in Pediatrics*
- Aaron Nimetz, A.B., M.D., *Associate in Pediatrics*
- William Staton Anderson, A.B., M.D., *Associate in Pediatrics*
- Mabel Harlakenden Grosvenor, A.B., M.D., *Associate in Pediatrics*
- John Augustine Washington, A.B., B.S., M.D., *Associate in Pediatrics*
- Carolyn Snyder Pincock, A.B., M.D., *Clinical Instructor in Pediatrics*
- Richard Henry Todd, A.B., M.D., *Clinical Instructor in Pediatrics*
- Dorothy Steidle Jaeger, M.D., *Clinical Instructor in Pediatrics*
- Herbert Harold Diamond, M.D., *Clinical Instructor in Pediatrics*

- 354 *Pediatrics* Nicholson  
Ward walks and weekly clinic. Gallinger Hospital. Two sections.
- 355-56 *Pediatrics* Schutz  
Lectures on diseases and malformations of the newly born. Growth, metabolism, nutrition, nutritional diseases, therapeutics, habits, preventive pediatrics, and social aspects are considered. One hour a week for twenty-four weeks.
- 357-58 *Clinic* Pincock  
Clinical instruction in the care and diseases of the newly born, congenital malformations, birth injuries, and prematurity. Gallinger Hospital. One fourth of the class, one hour a week.
- 359-60 *Contagious-Disease Clinic* The Staff  
Bedside instruction in scarlet fever, diphtheria, etc. Gallinger Hospital. One fourth of the class, one hour a week. Ward walks twice a week.
- 463-64 *Child-Welfare and Preventive Clinic* Schutz  
Clinical course in the infant and the pre-school child. Children's Hospital, Child Welfare Center. One section, one hour a week.
- 465-66 *Clinic* The Staff  
Out-patient clinic: minor to serious disorders of children, emotional life of the child, habit formations, and behavior problems. Children's Hospital. One section, Mon., Tues., Wed., and Fri., one and one-half hours.

467-68 *Clinic*

Donnally

Teaching clinic. Children's Hospital. Entire class, one and one-fourth hours a week.

469-70 *Clinical Clerkship*

The Staff

Ward walks, physical diagnosis, pediatric procedures, bedside instruction in contagious diseases, laboratory and necropsy instruction, diagnosis of urgent cases. Children's Hospital. One fourth of the class. Mon., Tues., Wed., and Fri., 9:30 A.M. to 4:30 P.M.

471-72 *Allergy Clinic*

Donnally

Prerequisite: Bacteriology 209. Practical work in the Allergy Clinic of Children's Hospital may be obtained by a small group of senior students. Two afternoons a week.

## PHARMACOLOGY AND THERAPEUTICS

George Byron Roth, A.B., M.D., *Professor of Pharmacology, Executive Officer*

Edgar William Ligon, Jr., Ph.D., *Assistant Professor of Pharmacology*

Edward Leong Way, Ph.D., *Instructor in Pharmacology*

263 *Pharmacology* Roth and Staff  
Laboratory instruction covering both the chemical nature and the biological effects of drugs. Five hours a week.

265 *Pharmacology* Roth  
Lectures and demonstrations to correlate the most prominent facts relating to the more important therapeutic agents. Drugs found in the *United States Pharmacopoeia* and *New and Non-official Remedies* are stressed. Three hours a week.

267 *Pharmacology Conference* Roth and Staff  
One hour a week.

269 *Prescription Writing* Roth  
Sixteen one-hour conferences on the form of the prescription, with practical exercises.

362 *Research* Roth and Staff  
Hours and credits to be arranged.



## PHARMACY

- \*William Paul Briggs, M.S., *Professor of Pharmacy*  
 Lea Gene Gramling, Ph.D., *Assistant Professor of Pharmacology and Pharmacognosy, Acting Executive Officer*  
 Lloyd Walter Hazleton, Ph.D., *Assistant Professor of Pharmacology*  
 \*Charles Watson Bliven, M.S., *Assistant Professor of Pharmaceutical Chemistry*  
 Asa Vernon Burdine, *Lecturer on Pharmaceutical Economics*  
 Leopold Henry Forster, Ph.G., *Instructor in Hospital Pharmacy*  
 Helen McDonald, B.S. in Phar., *Instructor in Pharmacy*  
 Emily Anna May Godfrey, B.S. in Ed., *Research Associate in Pharmacology*  
 Kathleen Darner, A.B., *Research Associate in Pharmacology*

## SEMINAR LECTURERS

- James Johnson Durrett, M.S., M.D., *Professorial Lecturer on Drug Control Problems*  
 Evander Francis Kelly, Phar.D., Sc.D., *Professorial Lecturer on Pharmaceutical Organizations*  
 Carson Peter Frailey, Phar.D., *Professorial Lecturer on Industrial Pharmacy*  
 Warren Fales Draper, A.B., M.D., *Professorial Lecturer on Public Health*  
 Frederick John Cullen, Phar.G., M.D., *Professorial Lecturer on Drug Manufacture*  
 James Albert Horton, LL.B., *Professorial Lecturer on Drug Trade Regulations*  
 John Christian Krantz, Jr., Ph.D., *Professorial Lecturer on Pharmaceutical Research*  
 Justin Lawrence Powers, Ph.D., *Professorial Lecturer on Official Drug Standards*  
 George Clemens Ruhland, M.D., *Professorial Lecturer on Hygiene and Sanitation*  
 Robert Lee Swain, Phar.D., LL.B., *Professorial Lecturer on Contemporary Pharmacy*  
 George Potter Larrick, *Professorial Lecturer on Drug Control*

*Minimum requirements for the degree.—See pages 110-12.*

\* On war leave 1943-44.

## FIRST GROUP

- 1-2 *Principles of Pharmacy* (2-2) McDonald  
Pharmaceutical mathematics and fundamental laboratory technique. Material fee, \$6 a term; breakage deposit\* payable in advance, \$5 a year. Mon. and Wed., 9:10 A.M. Laboratory—Fri., 9:10 to 11:00 A.M.
- 21-22 *Operative Pharmacy* (4-4) Gramling, McDonald  
The theory and manufacture of pharmacopoeial and proprietary preparations. Material fee, \$9 a term; breakage deposit\* payable in advance, \$10 a year. Mon. and Wed., 11:10 A.M. Laboratory—fall term, Wed. and Thurs., 1:40 to 4:30 P.M.; winter term, Mon. and Wed., 1:40 to 4:30 P.M.
- 23-24 *Pharmacognosy* (3-3) Gramling, Darner  
Macroscopic and microscopic. Prerequisite, Botany I. Material fee, \$6 a term. Tues. and Thurs., 10:10 A.M. Laboratory—Fri., 1:40 to 4:30 P.M.

## SECOND GROUP

- 102 *Dispensing Pharmacy* (4) Gramling, Godfrey  
Compounding of typical prescriptions and a study of incompatibilities. Prerequisite, Pharmacy 2 and 22. Material fee, \$9; breakage deposit\* payable in advance, \$5 a year. Mon. and Wed., 10:10 A.M. Laboratory—Tues. and Thurs., 1:40 to 4:30 P.M.
- 103 *Dispensing Pharmacy* (4) Gramling, Godfrey  
Continuation of Pharmacy 102. Material fee, \$9; breakage deposit\* payable in advance, \$5 a year. Tues. and Thurs., 10:10 A.M. Laboratory—Tues. and Fri., 1:40 to 4:30 P.M.
- 105-6 *Pharmacology I* (2-2) Gramling  
Uses of official and new nonofficial drugs: biologicals, glandular products, first aid, and medical requisites. Mon. and Wed., 9:10 A.M.
- 108 *History of Pharmacy* (1) \_\_\_\_\_  
Fri., 11:10 A.M.
- 109 *Organic Pharmaceutical Chemistry* (3) McDonald  
Preparation and qualitative testing of official organic chemicals and chemical preparations. Material fee, \$9; breakage deposit\* payable in advance, \$5 a year. Prerequisite, Chemistry 152. Tues. and Thurs., 10:10 A.M. Laboratory—Fri., 1:40 to 4:30 P.M.
- 110 *Inorganic Pharmaceutical Chemistry* (3) McDonald  
Preparation and qualitative testing of official inorganic chemicals and chemical preparations. Material fee, \$9; breakage deposit\* payable in advance, \$5 a year. Prerequisite, Chemistry 21. Mon. and Wed., 11:10 A.M. Laboratory—Wed., 1:40 to 4:30 P.M.
- 151 *Advanced Pharmacognosy* (2) Gramling  
Microscopic. Prerequisite, Pharmacy 24. Material fee, \$6. (Not offered in 1943-44.)

\* The maximum deposit for two or more courses is \$10. In case the student's breakage totals more than this amount, he will be required to make an additional deposit.

153-54 *Pharmacology II (3-3)*

Laboratory work in basic pharmacological technique. Prerequisite: Pharmacy 106; Physiology 115 and 117. Material fee, \$6 a term. Hazleton  
Hours to be arranged.

165-66 *Pharmacology III (3-3)*

Pharmacodynamics, toxicology, and biological assays. Prerequisite: Pharmacy 106; Physiology 115 and 117. Pharmacy 166, material fee, \$9. Fall term: Tues., Thurs., and Fri., 9:10 A.M. Winter term: Tues. and Thurs., 9:10 A.M. Laboratory—Fri., 1:40 to 4:30 P.M. Hazleton

172 *Advanced Dispensing Pharmacy (2)*

The equipment and management of professional pharmacies and advanced dispensing. Prerequisite: Pharmacy 104. Material fee, \$9; breakage deposit,\* payable in advance, \$5 a year. (Not offered in 1943-44.)

174 *Quantitative Pharmaceutical Analysis (4)*

Drug analysis. Prerequisite: Chemistry 22. Material fee, \$9; breakage deposit,\* payable in advance, \$5 a year. Tues. and Thurs., 11:10 A.M. Laboratory—Tues. and Thurs., 1:40 to 4:30 P.M. McDonald

176 *Pharmaceutical Law (1)*

Fri., 9:10 A.M. Gramling

178 *Pharmaceutical Economics (2)*

Fri., 11:10 A.M. to 1:00 P.M. Burdine

181 *Advanced Pharmacology I (2)*

Solved problems and studies in the field of pharmacology. Prerequisite: Pharmacy 106. Prerequisite or concurrent registration: Pharmacy 105. (Not offered in 1943-44.) Gramling

184 *Advanced Pharmacology II (2)*

Advanced biologicals and glandular products. Prerequisite: Pharmacy 106. Prerequisite or concurrent registration: Pharmacy 105. (Not offered in 1943-44.) Gramling

186 *Pharmaceutical Chemistry (2)*

A study of the relationship of structure to action of synthetic drugs. Prerequisite: Pharmacy 109. (Not offered in 1943-44.)

187-88 *Seminar (1-1)*

A symposium covering the various phases of Pharmacy. Fri., 1:10 A.M. The Seminar Staff

192 *Prescription Practice (no credit)*

The compounding of prescriptions and manufacture of medicinal preparations in the University Hospital Pharmacy. Required of seniors. Forster

\* The maximum breakage deposit for two or more courses is \$10. In case the student's breakage totals more than this amount, he will be required to make an additional deposit.

## PHILOSOPHY

Christopher Browne Garnett, Jr., Ph.D., Litt.D., *Associate Professor of Philosophy, Executive Officer*

*The major.*—The major in philosophy, administered under the new plan, provides an opportunity for the student to become acquainted with the broader and more fundamental aspects of his world and his civilization.

### FIRST GROUP

- 1-2 *Introduction to Philosophy* (3-3) Garnett  
 The course is designed to introduce the student to the vital issues, both theoretical and practical, with which human intelligence is confronted in the present age. Section A: Mon., Wed., and Fri., 11-12 A.M.; section B: Mon., Wed., and Fri., 6-10 P.M.  
 Summer term 1943—Philosophy 1 (3).

### SECOND GROUP

- 111-12 *History of Philosophy* (3-3) Garnett  
 A historical survey of the large periods and the main philosophers in the Orient and the Western world. Tues., Thurs., and Sat., 9:10 A.M.
- 121 *Logic* (3) Garnett  
 A critical study of deductive logic, induction, and the application of the principles of reflective thought in the natural and social sciences.  
 Summer term 1943.
- 132 *Ethics* (3) Garnett  
 A study of wisdom in conduct in personal and group life. (Not offered in 1943-44.)
- 142 *Contemporary American Philosophy* (3) Garnett  
 A comparative study of the general philosophies of Dewey, Perry, Pratt, Stace, Whitehead, Santayana, and Fite. (Not offered in 1943-44.)
- 151 *Problems in the Philosophy of the Sixteenth and Seventeenth Centuries* (3) Garnett  
 A comparative study of the general philosophies of Bruno, Bacon, Descartes, Malebranche, Spinoza, Leibniz, and Newton. (Not offered in 1943-44.)
- 155-56 *Philosophical Movements in the Eighteenth Century* (3-3) Garnett  
 A study of the general culture of the Enlightenment with special emphasis upon science, art, literature, religion, and politics. Ability to read French and German is desirable. (Not offered in 1943-44.)
- 199-200 *Proseminar: Readings for the Major* (3-3) Garnett  
 Hours to be arranged.



## PHYSICAL EDUCATION FOR MEN\*

†James Ebenezer Pixlee, B.S., *Professor of Physical Education for Men*  
William Henry Myers, A.M., *Associate Professor of Physical Education for Men; Acting Executive Officer*

This Department includes all the recognized athletic activities of the male students of the University.

Two years of physical education (Physical Education 1-2 and 11-12) are required of all men for graduation, except those students exempt under the regulations stated on page 38.

Upon entering the University, all freshmen or other undergraduate students who have not fulfilled the physical education requirement are given a medical examination. Assignments for medical examinations will be given at the time of registration. The students who satisfy the requirements of the medical examination are then given a physical efficiency test in the general bodily skills of agility, endurance, and strength; and in swimming. If the physical efficiency test is passed, the student may elect from the following list of activities, all of which are essential for war training:

- Setting up Exercises (stretching exercises)
- Military Exercises (self-defensive combative skills)
- Competitive Exercises (modified games and sports)
- Swimming Exercises (distance, speed, and war functioning)

If the physical efficiency test is not passed, the student will be assigned to classes for training in the above activities in the order listed.

The Department furnishes gymnasium uniforms and personal equipment upon a small payment.

*Minimum requirements for the Dual-Major Teacher's Course.*—See page 112.

*Minimum requirements for the Single-Major Teacher's Course.*—See page 112.

*Minimum requirements for the minor.*—Prerequisite: Physical Education 43-44, 45-46 (all of these courses may be satisfied by examination), 47, 48-49. Required: twelve credit hours of second-group courses in physical education including 101, 102, and 113-14.

### FIRST GROUP

1-2 *Freshman Physical Education* § (2-2) The Student  
Four periods of supervised activity a week. Locker and towel fee, \$2 a term. Assignment for activities and hours to be arranged.

11-12 *Sophomore Physical Education* § (2-2) The Student  
Four periods of supervised activity a week. Locker and towel fee, \$2 a term. Assignment for activities and hours to be arranged.

\* The University is not responsible for injuries received in inter-collegiate or intramural games, or in any of the activities of the departments of physical education.

† On war leave 1043-44.

‡ Freshmen and sophomores in the School of Education are required to take two, instead of four, periods of physical education a week for which they receive one, instead of two, credits a term.

- 42 *Aquatic Sports, Swimming, and Lifesaving* (2) \_\_\_\_\_  
Fri., 1:00 to 3:00 P.M.
- 43-44 *Techniques of Physical Education Motor Activities for Freshmen* (2-2) The Staff  
A critical survey of the fundamental skills, rules, organization, appreciations, and attitudes in these activities. Mon. and Wed., 1:40 to 3:30 P.M.
- 45-46 *Techniques of Physical Education Motor Activities for Sophomores* (2-2) The Staff  
Tues. and Thurs., 1:40 to 3:30 P.M.
- 47 *Introduction to Physical Education* (2) Myers  
An orientation course presenting in elementary form the problems of physical education, vocational analysis, historical implication, scientific foundations, and scope of field. Tues. and Thurs., 8:10 A.M.
- 49 *Human Anatomy* (3) \_\_\_\_\_  
The structure of the human body. Basic course for physical education students. Open to both men and women. Prerequisite: Biology 1-2. Hours to be arranged.
- 58 *First Aid and Care of Athletic Injuries* (2) The Staff  
Prevention and emergency care of injuries of all types, with special reference to first aid, bandaging, and massage. A practical course. Prerequisite: Physical Education 49; Biology 1-2. Tues. and Thurs., 1:40 P.M.

## SECOND GROUP

- 101 *Nature and Function of Play* (2) Atwell  
The significance of play in human growth and development; social and physical aspects of play; play activities in relation to age levels. Open to both men and women. Tues. and Thurs., 6:10 P.M.
- 103 *History and Principles of Physical Education* (2) Myers  
The interpretation of objectives of physical education activities under leadership, in terms of development, adjustment, and standards. Open to both men and women. Mon. and Wed., 9:10 A.M.
- 107 *Introduction to Methods in Physical Education* (2) \_\_\_\_\_  
Essential facts of education, psychology, and sociology, with special reference to the problem of method in physical education. Prerequisite: Biology 1-2; Psychology 1 and 22; Sociology 27 and 28. Tues. and Thurs., 1:40 P.M.
- 109 *Leadership Organization in the Intramural Program* (2) \_\_\_\_\_  
Principles of administration, organization, and supervision of intramural activities in the physical education program of the junior high school, senior high school, and colleges. Prerequisite: Physical Education 47 and 107. Mon. and Wed., 1:40 P.M.

- Physical Education 109x—same as Physical Education 109, but offered winter term. Mon. and Wed., 1:40 P.M.
- 113-14 *Directed Teaching in Physical Education Activities* (2-2) The Staff  
Practical demonstration of teaching procedures in adapting activities to the various problems in the secondary school organization. Prerequisite: a minimum of twelve credit hours in physical education; Physical Education 1-7. Hours to be arranged.
- 115-16 *Methods in Major Sport Activities* (2-2) The Staff  
Teaching procedures in adapting major sport activities to the several age-period groups and to individual differences existing in the secondary school organization. Prerequisite: demonstration of a fair degree of skill in these various activities; Physical Education 107. Fall term: Tues. and Thurs., 9:10 A.M.; winter term: Tues. and Thurs., 11:10 A.M.
- 117-18 *Methods in Minor Sport Activities* (2-2) The Staff  
The scientific procedures in adapting these various activities to a secondary school physical-education program. Prerequisite: demonstration of a fair degree of skill in these various activities; Physical Education 107. Fall term: Tues. and Thurs., 11:10 A.M.; winter term: Tues. and Thurs., 9:10 A.M.
- 121 *School and Community Health Programs* (3) Myers  
Health services, healthful environment, health instruction, sources of material for general health knowledge. Open to both men and women. Prerequisite: Zoology 1-2 or Biology 1-2. Hours to be arranged.
- 122 *Methods and Materials in Health Education* (3) Burtner  
Organization and presentation of health materials for each age level. Prerequisite: Zoology 1-2 or Biology 1-2. Open to both men and women. Hours to be arranged.
- 123 *Psychological Analysis of Activities* (2) The Staff  
A detailed analysis of the mental processes during participation in physical-education activities. Prerequisite: Psychology 1 and 22. Tues. and Thurs., 11:10 A.M.
- 124 *Applied Anatomy and Physiology* (3) Myers  
The anatomical and physiological effects of physical-education activities. Prerequisite: Physical Education 49; Physiology 115; Zoology 1-2. Mon., Wed., and Fri., 1:40 P.M.
- 125 *Kinesiology of Sports for the Physically Handicapped* (3) Myers  
Methods employed in the teaching of body mechanics which are adapted to the prevention and correction of physical disabilities. Prerequisite: Physical Education 49 and 124; Zoology 1-2. Hours to be arranged.
- 131 *Tests and Measurements in Physical Education* (3) Atwell  
Critical survey of tests in physical activities; methods of test construction; elementary statistics. Open to both men and women. Hours to be arranged.

- 133-34 *Observation and Practice Teaching* (3-3) Myers  
Required of every major student in the junior or senior year. Assignments are made to schools in Washington, D. C., and vicinity. Prerequisite: Education 131; Physical Education 113-14. Hours to be arranged.
- 138 *Administration and Organization of Physical Education* (2) Myers  
The administration of a unified program; a study of physical education plants, athletic fields, and equipment. Prerequisite: Physical Education 47. Tues. and Thurs. 9-10 A.M.
- 145 *Administration of Community Recreational Programs* (3) The Staff  
The administrative organization of recreational projects, related agencies; problems of program content. Field trips, observation, practical work. Prerequisite: Physical Education 131. Open to both men and women. Hours to be arranged.



## PHYSICAL EDUCATION FOR WOMEN\*

Ruth Harriet Atwell, A.M., *Professor of Physical Education for Women, Executive Officer*

Helen Bennett Lawrence, A.M., *Associate Professor of Physical Education for Women*

‡Jenny Emsley Turnbull, A.M., *Assistant Professor of Physical Education for Women*

Elizabeth Burtner, A.M., *Assistant Professor of Physical Education for Women*

Ruth Hinkle Brunner, B.S., *Instructor in Physical Education for Women*

Helen Taylor, A.M., *Associate in Physical Education for Women*

Two years of physical education (Physical Education 1-2 and 11-12) are required of all women for graduation, except of students exempt under the regulations stated on page 38. In the fall a complete medical and physical examination is given each student for the purpose of discovering individual needs. Those students whose examinations indicate the desirability of remedial or restricted activity are assigned to a program especially adapted to their needs. This limited program includes moderate sports and individual body mechanics in small groups under careful supervision.

The required costume for physical education classes may be purchased at the Student Club.

*Minimum requirements for the major*—For the first two years in Junior College see page 52. For the last two years in the School of Education see page 119. Students desiring to prepare themselves to teach another subject in addition to physical education may do so by choosing their elective hours in one subject-matter field with the advice of the Dean of the School of Education.

### FIRST GROUP

#### 1-2 Freshman Physical Education (1-1)

The Staff

One period on fundamentals of hygiene and two periods of activity a week.

Hygiene: study of a well-balanced program for daily living based on the general physiological laws of personal hygiene. Section A: Mon. 12:10 P.M.; section B: Tues., 12:10 P.M.; section C: Wed., 12:10 P.M.

Activities: fall season, soccer or field hockey; winter season, dance, basketball, badminton, ice skating, or individual body mechanics; spring season, elementary, intermediate, or advanced swimming, or (if the swimming test has been passed) archery, canoeing, riding, golf, tennis, or bicycling. Locker and towel fee, \$2 a term. Section A: Mon. and Fri., 1:40 P.M.; section B: Tues. and Thurs., 1:40 P.M.; section C: Mon. and Fri., 2:40 P.M.; section D: Tues. and Thurs., 2:40 P.M.

\* The University is not responsible for injuries received in inter-collegiate or intra-mural games, or in any of the activities of the departments of physical education.

‡ On war leave 1943-44.

§ The locker and towel fee is required for registration in one or more of the activity courses.

**11-12 Sophomore Physical Education (1-1) The Staff**

Two periods of activity a week and one health conference a month. Fall season, field hockey, soccer, golf, archery, tennis, or riding; winter season, dance, basketball, badminton, ice skating, or individual body mechanics; spring season, swimming, or (if the swimming test has been passed) tennis, golf, riding, archery, canoeing, or bicycling. Locker and towel fee,\* \$2 a term. Section A: Wed. and Fri., 11:10 A.M.; section B: Wed. and Fri., 12:10 P.M.; section C: Mon. and Fri., 1:40 P.M.; section D: Tues. and Thurs., 1:40 P.M.; section E: Mon. and Fri., 2:40 P.M.; section F: Tues. and Thurs., 2:40 P.M.

**13-14 Skill Techniques in Physical Education The Staff***Activities (2-2)*

Practice in basic motor skills for prospective teachers in the following: (1) team sports—field hockey, soccer, basketball, softball, and speedball; (2) dance—folk, tap, modern; (3) body mechanics; (4) individual and dual sports—swimming, tennis, golf, badminton, archery; (5) graded games for all ages; (6) self-testing activities—tumbling, stunts, achievement tests. Programs are arranged according to individual needs. Locker and towel fee,\* \$2 a term. Wed., 1:40 to 4:30 P.M.; other hours to be arranged.

**15-16 Skill Techniques in Physical Education The Staff***Activities (2-2)*

Continuation of Physical Education 13-14. Locker and towel fee,\* \$2 a term. Wed., 1:40 to 4:30 P.M.; other hours to be arranged.

**18 Kinesiology (3) Lawrence**

A study of the anatomical mechanism of movement; analysis of the action of the muscles in physical-education activities. Prerequisite: Biology 1-2 or Zoology 1-2 and an approved course in anatomy. Mon., Wed., and Fri., 9:10 A.M.

**49 Human Anatomy (3)**

The structure of the human body. Basic course for physical education students. Open to both men and women. Prerequisite: Biology 1-2 or Zoology 1-2. Hours to be arranged.

**SECOND GROUP****101 Nature and Function of Play (2) Atwell**

The significance of play in human growth and development; social and physical aspects of play; play activities in relation to age levels. Open to both men and women. Tues. and Thurs., 6:10 P.M.

**103 History and Principles of Physical Education (2) Myers**

The interpretation of objectives of physical education activities under leadership, in terms of development, adjustment, and standards. Open to both men and women. Mon. and Wed., 9:10 A.M.

**105-6 Individual Body Mechanics and Physical Examinations (3-3) Lawrence**

Cause and correction of faulty body mechanics and other abnormal physical conditions; physical-examination methods used in the diagnosis

\* The locker and towel fee is required for registration in one or more of the activity courses.

- of physical defects, program adaptation to special cases. Prerequisite: Physical Education 18; Zoology 1-2 or Biology 1-2 and an approved course in anatomy. Mon., Wed., and Fri., 1:15-1:45 P.M.
- 111-112 *Methods of Teaching Physical Education Activities (2-2)* The Staff  
Teaching procedures and educating, with opportunities for practice in teaching the following: (1) team sports; (2) individual and dual sports; (3) graded games; (4) dance; (5) body mechanics. Locker and towel fee,\* \$2 a term. Wed., 1:40 to 4:30 P.M.; other hours to be arranged.
- 119-120 *Methods of Teaching Physical Education Activities (2-2)* The Staff  
Continuation of Physical Education 109-10. Locker and towel fee,\* \$2 a term. Wed., 1:40 to 4:30 P.M.; other hours to be arranged.
- 121 *School and Community Health Programs (3)* Myers  
Health services, healthful environment, health instruction, sources of material for general health knowledge. Open to both men and women. Prerequisite: Zoology 1-2 or Biology 1-2. Hours to be arranged.
- 122 *Methods and Materials of Health Instruction (3)* Burnett  
Organization and presentation of health materials for each age level. Prerequisite: Zoology 1-2 or Biology 1-2. Open to both men and women.
- 130 *Clinical Work in Individual Body Mechanics and Physical Examinations (3)* Lawrence  
Practice in giving physical examinations, analysis of results, prescription and teaching of corrective exercises; observation in orthopedic clinics in city; first aid and care of athletic injuries, with instruction in bandaging and massage. Prerequisite: Physical Education 18 and 105-6; Zoology 1-2 or Biology 1-2. Hours to be arranged.
- 131 *Tests and Measurements in Physical Education (3)* Atwell  
Critical survey of tests in physical activities; methods of test construction; elementary statistics. Open to both men and women. Hours to be arranged.
- 132 *Camp Leadership (1)* Atwell and Lecturers  
Philosophy and administration of modern camps. Lectures and discussions by specialists in the various phases of camping; field workshop in camp activities; seminar on camp administration. Additional credit for field work in camp under supervision may be arranged. Open to both men and women. Thurs., 7:30 to 9:30 P.M.
- 133-34 *Observation and Cadet Teaching (3-3)* Atwell, Burnett  
Directed teaching with weekly conferences in junior and senior high schools.

\* The locker and towel fee is required for registration in one or more of the above courses.

- 140 *Administration of Physical Education* (3) Atwell  
Organization and administration of physical education in elementary and secondary school and colleges. Prerequisite: Physical Education 101 and 103. Mon., Wed., and Fri., 11:10 A.M.

- 146 *Administration of Community Recreational Programs* (3) The Staff

The administrative organization of recreational projects, social organization of recreation; problems of program content. Field trips; observation; practice work. Prerequisite: Physical Education 101. Open to both men and women.



## PHYSICS

Thomas Benjamin Brown, Ph.D., *Professor of Physics, Executive Officer*  
 Walter Lynn Cheney, Ph.D., *Professor of Physics*  
 George Antony Gamow, Physics D., *Professor of Theoretical Physics*  
 \*Edward Teller, Ph.D., *Professor of Physics*  
 \*Raymond John Seeger, Ph.D., *Associate Professor of Physics*  
 Mary Langs Argo, A.M., *Instructor in Physics*  
 George Martin Koehl, A.M., *Associate in Physics*  
 Lawson Morell McKenzie, A.M., *Associate in Physics*

*The major*—Prerequisite: Physics 6, 7, 8, and 55; Mathematics 19 and 20.  
 Required for the Bachelor of Arts degree: Physics 113-14, 116, 121-22, 125, and four credit hours of second-group laboratory courses; Mathematics 132.  
 Required for the Bachelor of Science degree: same courses as for the Bachelor of Arts degree, plus Mathematics 171.

### FIRST GROUP

#### 5 General Physics† (3)

Brown and Argo

Introduction to the scientific method as used in the study of energy and forces; physical properties of solids, liquids, and gases; phenomena of heat and light. Material fee, \$6. Lecture—section A: Tues., 11:10 A.M.; section B: Tues., 6:10 P.M. Recitation and laboratory—section I: Thurs., 11:10 A.M., and Wed., 1:40 to 4:00 P.M.; section M: Thurs., 1:40 and 2:40 to 5:00 P.M.; section N: Fri., 1:40 and 2:40 to 5:00 P.M.; section R: Thurs., 6:10 and Tues., 8:00 to 10:30 P.M.; section S: Thurs., 6:10 and Wed., 8:00 to 10:30 P.M.; section T: Thurs., 7:10 and 8:00 to 10:30 P.M.

Physics 5x—same as Physics 5, but offered winter term (April). Lecture—section A: Fri., 11:10 A.M.; section B: Fri., 7:10 P.M. Recitation and laboratory—section J: Wed., 1:40 and Mon., 1:40 to 4:00 P.M.; section L: Mon., 11:10 A.M. and Wed., 11:10 A.M. to 1:30 P.M.; section P: Wed., 7:10 and Mon., 8:00 to 10:30 P.M.

Summer term 1943.

#### 6 General Physics† (3)

Cheney and Stue

Mechanics, wave-motion, sound, and the theory of optical instruments. Offered winter term. Prerequisite: Physics 5. Material fee, \$6. Lecture—section A: Tues., 11:10 A.M.; section B: Tues., 6:10 P.M. Recitation and laboratory—section L: Thurs., 11:10 A.M. and Wed., 1:40 to 3:30 P.M.; section M: Thurs., 1:40 and 2:40 to 4:00 P.M.; section N: Fri., 1:40 and 2:40 to 4:30 P.M.; section P: Thurs., 6:10 and Mon., 8:00 to 10:00 P.M.; section R: Thurs., 7:10 and Tues., 8:00 to 10:30 P.M.

\* On war leave 1943-44.

† Physics 6, 7, and 8 constitute the basic course in physics. Students who have credit for high school physics from an accredited high school may omit Physics 5 as a prerequisite for Physics 6 and 7, provided that they pass a qualifying examination given at the beginning of the course (Physics 6 or Physics 7).

Before completing registration for Physics 5, 6, 7, or 55, each student must obtain from the representative of the Department an assignment to a class section.

8:00 to 10:00 P.M.; section S: Thurs., 6:10 and Wed., 8:00 to 10:00 P.M.

Summer term 1943.

### 7 General Physics\* (3)

Cheney and Staff

Electricity; magnetism; the principles underlying the uses of electric power in everyday life. Offered full term. Prerequisite: Physics 5. Material fee, \$6. Lecture—section A: Thurs., 11:10 A.M.; section B: Thurs., 6:10 P.M. Recitation and laboratory—section K: Tues., 1:40 and 2:40 to 4:30 P.M.; section L: Wed., 1:40 and 2:40 to 4:30 P.M.; section N: Tues., 11:10 A.M. and Fri., 1:40 to 3:30 P.M.; section P: Tues., 6:10 and Mon., 8:00 to 10:00 P.M.; section R: Tues., 7:10 and 8:00 to 10:00 P.M.; section S: Tues., 6:10 and Wed., 8:00 to 10:00 P.M.

Summer term 1943.

### 8 General Physics\* (2)

Brown

The experimental evidence concerning the nature of light, electricity, and matter, practical developments of modern physics, such as X-ray apparatus, electron tubes, and radio. Prerequisite: Physics 6 and 7. Section A: Tues. and Thurs., 11:10 A.M.; section B: Tues. and Thurs., 6:10 P.M.

Summer term 1943.

### 55 Physical Measurements (2)

Cheney

Theory and use of the methods of precise measurement in the several fields of physics. Prerequisite: Physics 6 and 7. Prerequisite or concurrent registration: Mathematics 19. Material fee, \$6. Section A: Thurs., 1:40 P.M.; laboratory—Thurs., 2:40 to 4:30 P.M. Section B: Wed., 7:10 P.M.; laboratory—Fri., 7:30 to 9:00 P.M.

Summer term 1943.

## SECOND GROUP

### 113-114 Molecular and Atomic Physics (3-3)

Gamow

Constituent particles of matter; kinetic theory and the properties of macroscopic bodies; spectra and the structure of atoms and molecules; introduction to chemical physics. Prerequisite: Physics 8; Mathematics 20. Tues. and Thurs., 7:35 to 8:50 P.M.

### 116 Optics (3)

Gamow

Geometrical optics; elementary theory of wave motion; interference, diffraction, polarization, and dispersion of light; laws of black-body radiation. Prerequisite: Physics 8, Mathematics 20.

Summer term 1943.

### 121 Mechanics (3-3)

Cheney

Fall term: statics, elasticity, dynamics of solids and fluids, and gravitation. Prerequisite: Physics 6; Mathematics 20. 1943-44 and alternate years, Mon., Wed., and Fri., 6:10 P.M.

\* Physics 6, 7, and 8 constitute the basic course in physics. Students who have credit for high school physics from an accredited high school must credit Physics 6 as a prerequisite to Physics 7 and 8, provided that they pass a qualifying examination given at the beginning of the course (Physics 6 or Physics 7).  
Before completing registration for Physics 6, 7, or 8, each student must obtain from the representative of the Department an assignment to a class section.

- 122 *Heat and Thermodynamics* (3) Cheney  
Thermometry, calorimetry, heat conduction, the laws of thermodynamics with application to physical systems. Prerequisite: Physics 8 and Mathematics 20. Mon., Wed., and Fri., 6:10 P.M.
- 125 *Principles of Electricity* (3) Cheney  
Fundamental phenomena of electricity and magnetism; circuit theory, including elementary alternating current circuits; terrestrial magnetism, atmospheric electricity. Prerequisite: Physics 8; Mathematics 20. (Not offered in 1943-44.)
- 128 *Sound* (3) Brown  
Production, propagation, and detection of sound waves; vibrations of sounding bodies; acoustic instruments and acoustic measurements. Prerequisite: Physics 8 and Mathematics 20. 1944-45 and alternate years, Mon., Wed., and Fri., 6:10 P.M.
- 132 *Electronics* (3) Brown  
The phenomena of electron emission from solids; the physical properties of electron tubes, and the principles underlying their basic applications. Prerequisite: Physics 8 and 125 or Physics 8 and Electrical Engineering 101. Material fee, \$6. Lecture—Mon. and Wed., 7:00 P.M. Laboratory—Mon., 8:00 to 10:00 P.M.  
Summer term 1943.
- 143-44 *Modern Experimental Physics* (3-3) Brown  
Experimental methods for the study of the physical properties of electrons, atoms, and molecules. Material fee, \$6 a term. (Not offered in 1943-44.)
- 155 *Advanced Physical Measurements* (2) Brown  
An individual program of experiments arranged for each student in accordance with his preparation and his special interests. Prerequisite: Physics 55 and 116, or 122, or 125. Material fee, \$6 a term. Tues. and Thurs., 8:10 to 10:00 P.M.

## THIRD GROUP

- 201-2 *Modern Physical Theories* (2-2) Gamow  
Elements of relativity, quantum theory, and nuclear physics. Prerequisite: Physics 113-14. 1944-45 and alternate years, Tues. and Thurs., 6:10 P.M.
- 211-12 *Classical Physical Theory* (3-3) Brown, Cheney  
Fall term: dynamics of systems of particles and of rigid bodies; generalized coordinates. Winter term: dynamics of elastic bodies and fluids; electromagnetic field theory. Prerequisite: Physics 121, 122, and 125; Mathematics 132 and 171. Mon., Wed., and Fri., 7:10 P.M.
- 213-14 *Electromagnetic Radiation* (3-3) Brown  
Electromagnetic theory as applied to light and radio waves, with especial consideration given to "micro-waves". Prerequisite: Physics 125 and 132 or the equivalent. 1943-44 and alternate years, Mon., Wed., and Fri., 6:10 P.M.

- 217-18 *Statistical Physics (3-3)*  
Foundations of classical and quantum statistics; kinetic theory of gases; partition functions; thermodynamic properties of matter and radiation. Prerequisite: Physics 113-14, 121, and 122. 1944-45 and alternate years, Mon., Wed., and Fri., 7:10 P.M.
- 221-22 *Quantum Mechanics (3-3)*  
Formulation and application of laws holding within the atom; the relation of these laws to those of classical physics. Prerequisite: Physics 113-14 and 211-12. 1944-45 and alternate years, Mon., Wed., and Fri., 9:10 P.M.
- 261 *Nuclear Physics (3)* Gamow  
Radioactivity, nuclear transformations, new particles, astrophysical applications. Prerequisite: Physics 113-14 and 211-12. 1943-44 and alternate years, hours to be arranged.
- 266 *Relativity and Gravitational Theory (3)* Gamow  
Basic principles, relativistic mechanics and electrodynamics; theory of gravitation, cosmology. Prerequisite: Physics 211-12. 1943-44 and alternate years, hours to be arranged.
- 275 *Structure of Stars (3)* Gamow  
Advanced work on stellar structure and energy source. Either term on a conference basis, admission by special permission.
- 291-92 *Seminar: Recent Developments in Physics (1-1)* The Staff  
Individual investigations of special problems. All students registered for Master of Arts work in physics are required to attend this seminar during the time they are working for this degree. They may register for credit for a maximum of three credit hours. Wed., 8:00 to 10:00 P.M., alternate weeks.
- 299-300 *Thesis (3-3)* The Staff



## PHYSIOLOGY

Errett Cyril Albritton, A.B., M.D., *Professor of Physiology, Executive Officer*

Chester Elwood Leese, Ph.D., *Associate Professor of Physiology*

Robert Custis Grubbs, M.S., M.D., *Assistant Professor of Physiology*

Alma Fogelberg, Ph.D., *Instructor in Physiology*

- 115 Physiology (3)** Leese and Staff  
Lectures for academic students covering the fundamentals of physiology in its various subdivisions. Prerequisite: one year of general science or one semester of a biological science. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Tues. and Thurs., 5:10 to 6:25 P.M.
- 117 Physiology (1)** Fogelberg, Grubbs  
Laboratory exercises in the fundamentals of physiology for academic students. Prerequisite: Physiology 115 or the equivalent. The two, 115 and 117, may be taken concurrently. Material fee, \$12. Sat. 10:10 A.M. to 1:00 P.M.
- 132 Physiology** Albritton and Staff  
Sixteen physiological lectures in each of the following divisions, each as a unit: (1) blood, heart, circulation, respiration, and acid-base balance; (2) nutrition, digestion, metabolism, excretion, temperature regulation, and water balance; (3) sensory reception, central nervous processes, and somatic and visceral motor activity; (4) the endocrine glands and reproduction.
- 134 Experimental Physiology** Albritton and Staff  
Laboratory work in each of the divisions listed in Physiology 132. Nine hours a week.
- 200 Physiology of Activity (1 or 2)** Albritton  
The circulatory, respiratory, endocrine, metabolic, and other adaptations, immediate and long term, accompanying activity. May be taken for two credits with additional work. Prerequisite: Physiology 115 or the equivalent. Tues., 9:10 A.M.
- 269-70 Problems in Physiology** Albritton and Staff  
Hours and credits to be arranged.
- 272 Experimental Method** Albritton  
Design of controlled experiments in medical or biological investigation; errors in design; criticism and judgment of evidence, and tests of the statistical significance of experimental results. May be taken for one credit with additional work. Eight lectures, hours to be arranged.
- 274 The Psycho-Physiology of Personality** Leese  
Lectures on the genesis and expression of personality, with emphasis on the physiological approach. May be taken for one credit with additional work. Eight lectures, hours to be arranged.
- 275-76 Research** Albritton and Staff  
Hours and credits to be arranged.

## POLITICAL SCIENCE

Warren Reed West, Ph.D., *Professor of Political Science, Executive Officer*

William Crane Johnstone, Jr., Ph.D., *Professor of Political Science*

Charles Hyneman, Ph.D., *Professorial Lecturer on Public Administration*

John Albert Tillema, Ph.D., LL.M., S.J.D., *Associate Professor of Political Science*

\*John Withrow Brewer, Ph.D., *Associate Professor of International Law*

Francis Colt deWolf, A.B., LL.B., *Lecturer on International Law*

J. Otis Garber, A.M., *Lecturer on Public Administration*

Robert Carnell Sampson, A.M., *Lecturer on Public Personnel Administration*

*Minimum requirements for the major.*—Prerequisite: Political Science 9-10. Required: twenty-four credit hours of second- or third-year courses in political science, including twelve credit hours from Political Science 111, 112, 117, 121, 122, 171, 181, and 182; and nine credit hours from one of the following groups: Group A, Political Science 115, 116, 124, 151, 152, and 161; Group B, Political Science 121, 122, 127, 128, 130, and 141; Group C, Political Science 171, 181, 182, 192, 193, 194, and 294.

### FIRST GROUP

9-10 *Government of the United States*†      West, Tillema  
(3-3)

Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Tues. and Thurs., 6:10 to 7:25 P.M.

Political Science 9x—same as Political Science 9, but offered winter term. Mon., Wed., and Fri., 5:10 P.M.

Summer term 1943.

### SECOND GROUP†

111 *The Governments of Europe: the Democracies* (3)      Tillema  
Mon., Wed., and Fri., 6:10 P.M.

Summer term 1943.

112 *The Governments of Europe: the Dictator States* (3)      Tillema  
Mon., Wed., and Fri., 6:10 P.M.

115 *Municipal Government* (3)  
(Not offered in 1943-44.)

\* On war leave 1943-44.

† Political Science 9-10 is prerequisite to all second-group courses.

- 116 *Political Parties* (3)  
(Not offered in 1943-44.)
- 117 *Political Theory* (3)  
(Not offered in 1943-44.) West
- 121-22 *The Constitution of the United States* (3-3)  
Mon., Wed., and Fri., 11:10 A.M. West
- 124 *Legislative Organization* (3)  
(Not offered in 1943-44.) West
- 127 *Commercial Law: Contracts, Agency, and Bailments* (3)  
Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Tues. and Thurs., 6:10 to 7:25 P.M. Tillema
- 128 *Commercial Law: Negotiable Instruments, Property, Sales, Mortgages* (3)  
Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Tues. and Thurs., 6:10 to 7:25 P.M. Tillema
- 129x *Law in Relation to the Form of Business Units* (3)  
Mon., Wed., and Fri., 7:10 P.M. Tillema
- 130 *Maritime Law* (3)  
(Not offered in 1943-44.) Tillema
- 141 *The Development of Legal Institutions* (3)  
(Not offered in 1943-44.) Brewer
- 151-52 *Public Administration* (3-3)  
Tues. and Thurs., 6:10 to 7:25 P.M. Hyneman
- 161 *Administrative Law* (3)  
Mon., Wed., and Fri., 7:10 P.M. Tillema
- 164 *Governmental Budgeting* (3)  
Mon., 8:10 P.M. Garber
- 171 *International Politics and Organization* (3)  
Mon., Wed., and Fri., 6:10 P.M.  
Summer term 1943. Johnstone
- 172 *Post-war Problems of International Politics and Organization* (3)  
Mon., Wed., and Fri., 10:10 A.M. Johnstone
- 181 *International Law* (3)  
Mon., Wed., and Fri., 7:10 P.M. deWolf
- 192 *The Near East: Politics and Government since 1878* (3)  
(Not offered in 1943-44.) Johnstone

- 193 *Far Eastern Governments: China, India, Japan, and Colonial Dependencies* (3) Johnstone  
Mon., Wed., and Fri., 10:10 A.M.
- 194 *Far Eastern Politics: Contemporary International Relations in the Pacific Area* (3) Johnstone  
Mon., Wed., and Fri., 6:10 P.M.
- 199-200 *Proseminar: Readings for International Relations Major* (3-3) Johnstone  
Hours to be arranged.

## THIRD GROUP

- 209-10 *Seminar: Congress and the President* (3-3) West  
Thurs., 8:10 P.M.
- 243 *Seminar: Classification in the Public Service* (3) Sampson  
Wed., 8:10 P.M.
- 244 *Seminar: Public Personnel Problems* (3) Hubbard  
Prerequisite: Psychology 143-44 or equivalent experience. Particular emphasis will be placed upon personnel problems of the war and post-war periods. Mon., 8:10 P.M.
- 281 *Seminar: International Law and Relations* (3) Johnstone  
Tues., 8:10 P.M.  
Summer term 1943
- 294 *Seminar: Politics and Governments in the Pacific Area* (3) Johnstone  
Tues., 8:10 P.M.
- 299-300 *Thesis* (3-3) The Staff  
Hours to be arranged.



## PSYCHIATRY

Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry, Executive Officer*

Roscoe Willis Hall, Ph.B., M.D., *Clinical Professor of Psychiatry*

John Edward Lind, M.D., *Clinical Professor of Psychiatry*

Solomon Katzenelbogen, M.D., *Clinical Professor of Psychiatry*

Harriet Elizabeth Twombly, A.B., M.D., *Associate in Psychiatry*

Addison McGuire Duvall, M.D., *Associate in Psychiatry*

Samuel Alexander Silk, Ph.G., M.D., *Associate in Psychiatry*

Edgar Deucher Griffin, A.B., M.D., *Associate in Psychiatry*

Paul Jacob Ewerhardt, M.D., *Clinical Instructor in Psychiatry*

Isabelle Kendig, Ph.D., *Clinical Instructor in Psychiatry*

### 136 *Introductory Medical Psychology*

Lind

Theoretical and practical aspects of the constitution, character, and personality as related to Medicine; psychological features in various diseases; types of character development and their ways of adaptation. One hour a week.

### 278 *Psychopathology*

Hall

Manifestations and understanding of various abnormal mental mechanisms and reaction types. Illustrated with suitable case material and preceded by history of development of psychopathology. One hour a week.

### 366 *Psychiatry*

Overholser

Major psychoses, illustrated by the presentation of clinical material and utilized for the purpose of explaining the fundamental psychological mechanisms involved. St. Elizabeths Hospital. One hour a week.

### 368 *Psychosomatic Aspects of General Medicine*

Katzenelbogen

Somatic disorders of functional origin versus organic structural disorders. The role of personality reactions in somatic disorders (illustrative cases). Gallinger Hospital. One hour a week.

### 370 *Personality Adjustments*

Ewerhardt

Maladaptations occurring in childhood and youth. One hour a week for eight weeks.

### 427-28 *Psychological Techniques in Psychiatric Practice*

Kendig

Discussion of psychological concepts and tools available for determination of intellectual level, personality structure, functional impairment and organic deterioration. One hour a week for four weeks.

### 473-74 *Ward Work*

The Staff

Personal mental examinations and formal written report of the examination of the various types of psychosis, followed by a review of the cases with an instructor. St. Elizabeths Hospital. Two hours a week.

### 475 *Psychoneurosis*

Lind

The clinical aspects, the etiology, the psychopathology, and the treatment of the various psychoneuroses. St. Elizabeths Hospital. One hour a week for twelve weeks.

## PSYCHOLOGY

- \*Mitchell Dreese, Ph.D., *Professor of Educational Psychology*  
 Henry Furness Hubbard, Ph.D., *Adjunct Professor of Psychology*  
 Carroll Leonard Shartle, Ph.D., *Professorial Lecturer in Psychology*  
 Thelma Hunt, Ph.D., M.D., *Associate Professor of Psychology, Executive Officer*  
 \*Steuart Henderson Britt, Ph.D., *Assistant Professor of Psychology*  
 John Porter Foley, Jr., Ph.D., *Assistant Professor of Psychology*  
 William Moore Loman, A.M., *Lecturer in Psychology*  
 \*Charles Norval Cofer, Ph.D., *Instructor in Educational Psychology*  
 Carolyn Lehman McGowan, A.M., *Lecturer in Psychology*  
 Katharine Tait Omwake, Ph.D., *Visiting Lecturer in Psychology*

*Minimum requirement for the major.*—Prerequisite: Psychology 1 and three credit hours of any other natural science course in psychology. Required Psychology 116, 191, 195, 196, and either 125 or 151; Psychology 118, Statistics 110, or 113-4; and five credit hours elective in psychology, or other related fields or departments if specifically approved in advance by the Department of Psychology.

### FIRST GROUP

#### 1 *General Psychology*† (3) Hunt, Foley

The fundamental principles underlying human behavior. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Tues., Thurs., and Sat., 9:10 A.M.; section C: Mon., Wed., and Fri., 6:10 P.M.; section D: Tues. and Thurs., 7:35 to 8:50 P.M.

Psychology 1x—same as Psychology 1, but offered winter term. Section A: Mon., Wed., and Fri., 9:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.

Summer term 1943.

#### 2 *Applied Psychology* (3) Hunt, ———

The application of psychology in business, industry, medicine, law, education, correction, and social problems. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.; Section C: Tues. and Thurs., 7:35 to 8:50 P.M.

Psychology 2x—same as Psychology 2, but offered fall term. Mon., Wed., and Fri., 6:10 P.M.

Summer term 1943.

#### 22 *Introduction to Educational Psychology* (3) —————

Individual differences and their significance in education and training; the psychology of learning. Tues., Thurs., and Sat., 10:10 A.M.

### SECOND GROUP†

#### 110 *Abnormal Psychology* (3) Hunt

The causes, diagnosis, treatment, and prevention of the various types of maladjustments and mental disorders. Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943.

\* On war leave 1943-44.

† Psychology 1 is prerequisite to all other courses in psychology.

- 121 *Educational Psychology* (3)  
Individual differences and their significance in education and training; the psychology of learning. Parallel: Psychology 22, but is designed for the more advanced student. Mon., Wed., and Fri., 7:10 P.M.
- 125 *Child Psychology* (3)  
A genetic approach to the study of the child. Tues. and Thurs., 6:10 to 7:25 P.M.  
Psychology 125x—same as Psychology 125, but offered winter term Mon., Wed., and Fri., 9:10 A.M.  
Summer term 1943.
- 129 *Educational and Vocational Guidance* (2)  
A survey of the techniques used in guidance. Wed., 8:10 P.M.
- 131 *Psychological Tests* (3)  
A survey of psychological tests and their more common uses in business, industry, government, law, medicine, and education. Material fee, \$2.25. Mon., Wed., and Fri., 11:10 A.M.  
Summer term 1943. Hunt
- 132 *Individual Psychological Testing* (2)  
Instruction and practice in the giving of the Binet test and other individual psychological tests. Material fee, \$2.25. Tues. and Thurs. 11:10 A.M. Hunt
- 134 *Educational and Psychological Measurements* (2)  
The construction and use of the newer types of educational and psychological tests. In exceptional cases, opportunity to earn three credit hours may be arranged. Material fee, \$2.25. Wed., 8:10 P.M.
- 141 *Psychology of Advertising and Selling* (3)  
Fundamental procedures of advertising and selling, with emphasis on the application of psychological principles. Tues. and Thurs., 7:35 to 8:50 P.M. Loman
- 142 *Business and Industrial Psychology* (3)  
Job analysis, selection, placement, and promotion of personnel; instruction in the use of standardized tests and research methods in cooperation with local industrial personnel officers. Tues. and Thurs., 7:35 to 8:50 P.M. Loman
- 143-44 *Public Personnel Psychology* (3-3)  
Fall term: personnel selection; winter term: inservice personnel activities. Mon., Wed., and Fri., 6:10 P.M. Hubbard  
Summer term 1943—Psychology 144 (3).
- 146 *Employee Counseling* (3)  
A study of the principles and techniques of individual counseling as applied to employees, with special reference to the problems of counselors in government departments. McGowan  
Summer term 1943.
- 151 *Social Psychology* (3)  
The social foundations of attitudes, behavior, and adjustment, especially in the family, neighborhood, school, church, fraternity, political



party, occupation, and other group situations. Tues., Thurs., and Sat., 10:10 A.M.

Psychology 151x—same as Psychology 151, but offered winter term. Tues. and Thurs., 6:10 to 7:25 P.M.

Summer term 1943.

156 *Propaganda and Public Opinion* (3)

A consideration of the processes by which individuals and groups arrive at attitudes, and of the social forces, together with the means by which, particularly in war time, public are influenced in various directions. Some attention will be paid to problems of opinion and attitude measurement. Thurs., 7-8 P.M.

157 *Psychology in Law* (3)

The social psychology of the courtroom and of the legal system. Analysis of perception, memory, habit, testimony, suggestion, and mental and emotional disturbances as related to the lawyer, witness, judge, and jury. (Not offered in 1943-44.)

162 *Comparative Psychology* (3)

Foley

A survey of psychological phenomena in individual organisms, with special emphasis on the evolution of animal behavior from the lowest forms to man. Mon., Wed., and Fri., 1-2 P.M.

191-92 *Experimental Psychology* (3-3)

Foley

The application of experimental methods to various psychological problems. Psychology 191 is prerequisite to 192. Mutual fee \$8 a term. 191: Mon. and Wed., 7-10 to 8:25 P.M. 192: Hours to be arranged.

195 *Current Literature and Survey of Fields* (3)

Foley

A coordinated resume of the major fields, critical reports on special topics, and reading of current psychological literature. Tues., 8-10 P.M.

196 *History and Systems of Psychology* (3)

Foley

A critical survey of the history of psychology and of contemporary points of view. Tues., 8-10 P.M.

197-98 *Field Work in Psychology*

The Staff

Supervised field work in agencies providing psychological service. Admission by permission of the Executive Officer of the Department. Hours and credit to be arranged.

THIRD GROUP\*

201 *Seminar: Advanced General Psychology* (3)

Foley

An intensive study of selected problems, with reports based upon periodical literature. Students will be required to develop and report a problem, which may lead to experimental research. (Not offered in 1943-44.)

203-4 *Research in Psychology*

The Staff

Hours and credits to be arranged.

Summer term 1943.

\* Psychology 1 is prerequisite to all other courses in psychology.



- 218 *Seminar: Structural Factors in Behavior* (3) Hunt  
A study of the endocrine glands as they affect behavior. (Not offered in 1943-44.)
- 220 *Seminar: Child Development* (3)  
An intensive study of selected problems in the field of child development. (Not offered in 1943-44.)
- 221 *Seminar: Educational Psychology* (3)  
A survey of recent literature on individual differences and learning, with emphasis on their educational applications. (Not offered in 1943-44.)
- 226 *Seminar: Clinical Psychology of Childhood* (3) Hunt  
A study of behavior problems, personality disturbances, and mental disorders of children, with clinic observations at Children's Hospital. Offered each term on the independent study plan to a limited number of students.  
Summer term 1943.
- 227 *Seminar: Techniques of Counseling* (3)  
A survey of counseling techniques and the types of problems most likely to confront homeroom teachers, vocational counselors, and personnel workers. (Not offered in 1943-44.)
- 230 *Seminar: Educational and Vocational Guidance* (3)  
The development of instruments and techniques to be used in guidance. Hours to be arranged.
- 231 *Seminar: Test Construction* (3) Hunt  
The principles underlying the construction, evaluation, and standardization of psychological, educational, and vocational tests, with practice in the construction of tests. Prerequisites: an elementary course in tests and measurements and an elementary course in statistics. Thurs., 7:35 P.M.
- 232 *Research: Test Construction* (3) Hunt  
Individual projects in construction and evaluation of psychological, educational, or vocational tests. Prerequisite: Psychology 231. Hours to be arranged.
- 233 *Seminar: Occupational Analysis Methods* (3) Shartle  
The methods and principles of analyzing jobs and workers in determining the occupational significance of techniques and data for occupational counseling, placement of workers, and transfer of skill. Prerequisite: Psychological Tests or Educational Measurements. Tues. 8:00 P.M.
- 235 *Seminar: Advanced Psychological Measurement* (3)  
Theory and principles of psychological measurement; selected topics in test theory, psychophysics, and factor analysis as applied to occupational analysis and selection and placement of personnel. (Not offered in 1943-44.)
- 252 *Seminar: the Social Psychology of Personality* (3) Hunt  
The determinants, structure, and development of personality. (Not offered in 1943-44.)

254 *Seminar: the Psychology of Propaganda (3)*

The psychological background, formation, and control of modern propaganda, with special emphasis on the field of public relations. (Not offered in 1943-44.)

291 *Seminar: the Conditioned Reflex (3)*

Foley

A historical and critical survey of the conditioned response as an experimental phenomenon, as a methodological technique, and as a theoretical principle. Thurs., 8:00 P.M.

299-300 *Thesis (3-3)*

The Staff

CLOSELY RELATED COURSES IN OTHER DEPARTMENTS

Political Science 243, *Seminar: Classification in the Public Service*

Political Science 244, *Seminar: Public Personnel Problems*

## ROMANCE LANGUAGES AND LITERATURES

\*Henry Grattan Doyle, A.M., *Professor of Romance Languages*

Merle Irving Protzman, Ph.D., *Professor of Romance Languages, Executive Officer*

Alan Thomas Deibert, A.M., *Associate Professor of Romance Languages*

\*Louis Clark Keating, Ph.D., *Associate Professor of Romance Languages*

Irene Cornwell, Ph.D., *Assistant Professor of French*

Antonio Alonso, A.M., *Assistant Professor of Spanish*

José Edmundo Espinosa, Ph.D., *Lecturer in Spanish American Literature*

Georgette DuPuy Caskie, L.-ès-L., *Instructor in Romance Languages*

Raul d'Eça, Ph.D., *Associate in Portuguese*

Lydia Driggs, A.M., *Associate in Spanish*

Roberto Daniel Meléndez, A.B., *Associate in Spanish*

Cecil Rafael Morales, A.M., *Associate in Spanish*

James Daniel Powell, Ph.D., *Associate in Romance Languages*

Rae Potter Vaughn, A.M., *Associate in Romance Languages*

Alberto Vásquez, Ph.D., *Associate in Spanish*

*The majors*—The Department of Romance Languages offers three majors administered under the new plan, and provides proseminars intended to assist the student in preparing himself for the respective major examinations. These are: (1) a *Major in French Literature* (proseminar: French 199-200), (2) a *Major in Spanish Literature* (proseminar: Spanish 199-200); and (3) a *Major in Spanish American Literature* (proseminar: Spanish 197-98). The members of the staff in charge of the respective proseminars are designated as advisers in the respective fields. In these majors, emphasis will be laid upon the political, social, and cultural background of the literature studied, as well as upon writers and their works. A reasonable proficiency in the spoken language will be required. For further details, see the pamphlet on the subject or consult the Executive Officer of the Department or the appropriate adviser.

### FRENCH

#### FIRST GROUP

##### †1-2 *First-year French* (3-3)

Cornwell and Staff

For beginners. Grammar; composition; drill in pronunciation; translation of modern French prose. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Mon., Wed., and Fri., 11:10 A.M.; section C: Mon., Wed., and Fri., 6:10 P.M.; section D: Mon., Wed., and Fri., 7:10 P.M.; section E: Tues. and Thurs., 6:10 to 7:25 P.M.

Summer term 1943.

##### †5-6 *Second-year French* (3-3)

Deibert and Staff

Advanced grammar and composition; reading of modern French prose; oral practice; introduction to French civilization. Prerequisite: French 1-2 or two years of high school French. Section A: Tues., Thurs., and

\* On war leave 1943-44.

Sat., 9:10 A.M.; section B: Mon., Wed., and Fri., 11:10 A.M.; section C: Mon., Wed., and Fri., 6:10 P.M.; section D: Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943.

# SECOND GROUP

French 5-6 or the equivalent is prerequisite to all second-group courses in French.

- 109-10 *Conversation and Composition* (3-3) Caskie  
Mon., Wed., and Fri., 9:10 A.M.
- 119-20 *Literature of the Sixteenth Century* (3-3) Protzman  
Prose, poetry, drama, and memoirs of the French Renaissance: Rabelais, Montaigne, Marot, La Pléiade, etc. Class analysis of texts; collateral reading. Recommended History 120. 1943-44 and alternate years. Mon., Wed., and Fri., 1:10 A.M.
- 121-22 *Literature of the Seventeenth Century* (3-3) Protzman  
History, philosophy, criticism, memoirs, letters, eloquence, drama, fiction, poetry. Class analysis of texts; collateral reading. 1944-45 and alternate years. Mon., Wed., and Fri., 6:10 P.M.
- 123-24 *Literature of the Eighteenth Century* (3-3) Deibert  
History, philosophy, criticism, letters, drama, fiction, poetry, the "salon", the idea of progress, the idea of science. Class analysis of texts; collateral reading; lectures on literature and history. 1943-44 and alternate years. Mon., Wed., and Fri., 6:10 P.M.
- 125-26 *Literature of the Nineteenth Century* (3-3) Keating  
Romanticism and realism: fiction, poetry, drama, criticism. Class analysis of texts; collateral reading; lectures on literature and history. 1944-45 and alternate years. Mon., Wed., and Fri., 11:10 A.M.
- 127-28 *Literature of the Twentieth Century* (3-3) Cornwell  
Fiction, poetry, drama, criticism. Class analysis of texts; collateral reading; lectures on literature and history. 1943-44 and alternate years. Tues., Thurs., and Sat., 10:10 A.M.
- 129-30 *French Drama* (3-3) Protzman  
Study of the principal dramatic movements and theories from the origins to the present, with class analysis of representative plays and individual reports to the class on supplementary plays. (Not offered in 1943-44.)
- 131-32 *History of French Literature and Civilization* (3-3) Cornwell  
The masterpieces of French literature and their social, political, and cultural background. Lectures, recitations, and informal discussions. Prerequisite: French 5-6 or the equivalent. (Not offered in 1943-44.)
- 199-200 *Proseminar: Readings for the Major in French Literature* (3-3) Protzman  
Conferences and group discussions. Hours to be arranged.



## THIRD GROUP

- 227-28 *Seminar in Modern French Literature* (3-3) Keating  
Prerequisite: a second-group course in French literature. 1944-45 and alternate years.
- 229-30 *Seminar in Classical French Literature* Protzman  
(3-3)  
Satire, burlesque, and works relating to the customs and manners of seventeenth century France will be studied during 1943-44. Prerequisite: a second-group course in French literature. 1943-44 and alternate years. Hours to be arranged.
- 249-50 *Old French* (3-3) Doyle  
Phonology and morphology of Old French, with an outline of its development through Vulgar Latin; survey of French literature to the end of the thirteenth century. Prerequisite: a second-group course in French literature; an elementary knowledge of Latin. (Not offered in 1943-44.)
- 251-52 *Middle French* (3-3) Doyle  
French literature of the fourteenth and fifteenth centuries. Class analysis of texts; collateral reading. Prerequisite: a second-group course in French literature. Knowledge of Old French desirable. (Not offered in 1943-44.)
- 299-300 *Thesis* (3-3) The Staff

## PORTUGUESE

## FIRST GROUP

- †1-2 *First-year Portuguese* (3-3) d'Eça  
For beginners. Grammar; composition; drill in pronunciation; translation of modern Portuguese prose. Mon., Wed., and Fri., 7:10 P.M.  
Summer term 1943.
- †5-6 *Second-year Portuguese* (3-3) d'Eça  
Advanced grammar and composition; reading of modern Portuguese prose; oral practice; introduction to Portuguese and Brazilian culture. Prerequisite: Portuguese 1-2 or the equivalent. Mon., Wed., and Fri., 6:10 P.M.  
Summer term 1943.

## SECOND GROUP

- Portuguese 5-6 or the equivalent is prerequisite to all second-group courses in Portuguese.
- 127-28 *Portuguese and Brazilian Literature* (2-2) d'Eça  
Evolution of the Portuguese language; outline of the literature of Portugal (fall term) and Brazil (winter term). Lectures, readings, and written reports. Conducted in Portuguese. Hours to be arranged.

## SPANISH

## FIRST GROUP

- †1-2 *First-year Spanish (3-3)* Protzman and Staff  
For beginners. Grammar; composition; drill in pronunciation; translation of modern Spanish prose. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Mon., Wed., and Fri., 9:10 A.M.; section C: Tues., Thurs., and Sat., 10:10 A.M.; section D: Mon., Wed., and Fri., 11:10 A.M.; section E: Mon., Wed., and Fri., 6:10 P.M.; section F: Tues. and Thurs., 6:10 to 7:25 P.M.; section G: Mon., Wed., and Fri., 7:10 P.M.; section H: Tues. and Thurs., 7:35 to 8:50 P.M.; section K: Mon., Wed., and Fri., 8:10 P.M.

Summer term 1943.

- 1-2x *First-year Spanish (accelerated) (6)* Protzman  
Same as Spanish 1-2, but full year given in fall term on an accelerated schedule. Students who have had Spanish 1 or one year of high school Spanish may enter the course in the middle of the term. Daily except Sat., 6:00 to 7:00 P.M.

- †5-6 *Second-year Spanish (3-3)* Alonso and Staff  
Advanced grammar and composition; reading of modern Spanish prose; oral practice; introduction to Hispanic civilization. Prerequisite: Spanish 1-2 or two years of high school Spanish. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Mon., Wed., and Fri., 9:10 A.M.; section C: Mon., Wed., and Fri., 11:10 A.M.; section D: Mon., Wed., and Fri., 6:10 P.M.; section E: Mon., Wed., and Fri., 7:10 P.M.; section F: Tues. and Thurs., 6:10 to 7:25 P.M.; section G: Tues. and Thurs., 7:35 to 8:50 P.M.

Summer term 1943.

- 5x-6 *Second-year Spanish (accelerated) (6)* Protzman  
Same as Spanish 5-6, but full year given in winter term on an accelerated schedule. Students who have had Spanish 5 or three years of high school Spanish may enter the course in the middle of the term. Daily except Sat., 6:00 to 7:00 P.M.

## SECOND GROUP

Spanish 5-6 or the equivalent is prerequisite for all second-group courses in Spanish.

- 109-10 *Conversation and Composition (3-3)* Alonso  
Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.

Summer term 1943.

- 111-12 *Commercial Spanish (3-3)* Meléndez  
Tues. and Thurs., 7:35 to 8:50 P.M.

- 121-22 *Spanish Literature of the Golden Age (3-3)* Protzman  
Cervantes, Lope de Vega, Calderon; the classic drama, fiction, the ballad, lyric poetry. Class analysis of texts, comparative reading, lectures on literature and history. Mon., Wed., and Fri., 11:10 A.M.

- 125-26 *Modern Spanish Literature* (3-3) Alonso  
 Prose and poetry of the eighteenth, nineteenth, and twentieth centuries. Class analysis of texts; collateral reading; lectures on literature and history. Mon., Wed., and Fri., 7:10 P.M.
- 129-30 *The Spanish American Novel* (3-3) Corliss  
 Development of the novel in Spanish America. Lectures, collateral reading, and class analysis of texts.  
 Summer term 1943.
- 137-38 *Spanish American Literature: South America* (3-3)  
 Development of the literature of the Spanish-speaking countries of South America. Lectures, collateral reading, and class analysis of important works. 1944-45 and alternate years. Tues. and Thurs. 7:35 to 8:50 P.M.
- 139-40 *Spanish American Literature: The Caribbean Area* (3-3) Espinosa  
 Development of the literatures of the Spanish-speaking countries of Central America, the West Indies, and Mexico. Lectures, collateral reading, and class analysis of important works. 1943-44 and alternate years. Tues. and Thurs. 7:35 to 8:50 P.M.
- 197-98 *Proseminar: Readings for the Major in Spanish American Literature* (3-3) Espinosa  
 Conferences and group discussions. Hours to be arranged.
- 199-200 *Proseminar: Readings for the Major in Spanish Literature* (3-3) Alonso  
 Conferences and group discussions. Hours to be arranged.

## THIRD GROUP

- 225-26 *Seminar in Spanish Literature* (3-3) Alonso  
 The topic for 1943-44 will be a study of the contemporary writers of Spain beginning with the generation of 1898. Prerequisite: a second-group course in Spanish literature. Hours to be arranged.
- 227-28 *Seminar in Spanish American Literature* (3-3)  
 Prerequisite: a second-group course in Spanish American literature. 1944-45 and alternate years, hours to be arranged.
- 249-50 *Old Spanish* (3-3) Doyle  
 Literature and philology: *Poema del Cid*, *Libro de Buen Amor*, *Conde Lucanor*, etc.; Menéndez Pidal's *Manual elemental de gramática histórica española* and Ford's *Old Spanish Readings*. Prerequisite: a second-group course in Spanish literature; an elementary knowledge of Latin. (Not offered in 1943-44.)
- 299-300 *Thesis* (3-3) The Staff

## ROMANCE LANGUAGES

## SPECIAL METHOD COURSE

- 176 *Teaching of Romance Languages* (2)  
 Current methods and materials. (Not offered in 1943-44.)



## SECRETARIAL STUDIES

Dorothy Helene Veon, A.M., *Assistant Professor of Secretarial Studies*,  
Executive Officer

Virginia Ruth Kirkbride, A.M., *Instructor in Secretarial Studies*

John Rowe, A.M., *Visiting Instructor in Secretarial Studies*

Mary Winifred Cox, A.B., *Associate in Secretarial Studies*

*Requirements for the Junior Certificate in Secretarial Studies.*—See page 53.

*Requirements for the degree of Bachelor of Science in Secretarial Administration.*—See special bulletin.

- 1 *Elementary Typewriting* (3) Kirkbride  
Fundamentals of typing; styles of business letters and forms; principles of tabulation. Laboratory fee, \$5. Section A: daily except Sat., 11:10 A.M. to 12:15 P.M.; section B: Mon., Wed., and Fri., 7:10 to 9:00 P.M.

Summer term 1943 (3) (Rowe).

- 2 *Intermediate Typewriting* (3) Kirkbride  
The business letter and its arrangement, advanced tabulation, manuscript typing, office forms, stencil cutting, and legal documents. Prerequisite: Secretarial Studies 1 or the equivalent; ability to type 30 words a minute. Laboratory fee, \$5. Section A: daily except Sat., 11:10 A.M. to 12:15 P.M.; section B: Mon., Wed., and Fri., 7:10 to 9:00 P.M.

- 11 *Elementary Shorthand and Transcription* (5) Veon, Kirkbride

A functional study of Gregg shorthand correlating dictation and transcription. Minimum speed of 60 words a minute attained. Section A: daily except Sat., 9:10 A.M.; section B: daily except Sat., 6:10 P.M.

Summer term 1943 (3) (Rowe).

- 12 *Intermediate Shorthand and Transcription* (5) Veon, Kirkbride

Review of shorthand principles; increasing speed and efficiency in shorthand through training in English grammar, syntax, and vocabulary; and analysis of transcriptions. Minimum speed of 80 words a minute attained. Prerequisite: Secretarial Studies 11 or the equivalent; ability to take dictation at 60 words a minute. Section A: daily except Sat., 9:10 A.M.; section B: daily except Sat., 6:10 P.M.

Summer term 1943 (3) (Veon).

- 15-16 *Advanced Transcription and Typewriting Problems* (3-3) Cox

Dictation and transcription involving the vocabularies used in general business, banking, government, law, medicine, and transportation. Minimum speed of 120 words attained. Advanced office typewriting problems and projects with emphasis on speed and accuracy. Prerequisite: Secretarial Studies 11 and 12, or the equivalent; ability



to take dictation at 80 words a minute and to transcribe accurately; ability to type 50 words a minute. Laboratory fee, \$3 a term. Mon., Wed., and Fri., 6:10 to 8:00 P.M.

Summer term 1943—Secretarial Studies 15 (3) (Veon).

21 *Secretarial Occupations* (2) Veon

Analysis of the structure of business firms: departments, and services; study of business equipment. Field trips, individual occupational study of a secretarial field (medical, legal, governmental, etc.) Tues. and Thurs., 10:10 A.M.

22 *Filing and Indexing* (2) Veon

Survey of filing systems and methods of indexing. Practice in the use of filing and indexing equipment. Tues. and Thurs., 10:10 A.M.

41 *Business Mathematics* (3) Kirkbride

Discounts and interests; annuities; investment evaluation; inventories and depreciations; etc. 1943-44 and alternate years, Tues. and Thurs., 1:10 to 2:30 P.M.

42 *Applied Bookkeeping for Secretaries* (3) Kirkbride

Training in modern bookkeeping procedure; thorough grounding in the fundamental principles of accounting involved in general records, ledgers, and working papers; special units on banking procedure, social security bookkeeping, and office routine. 1943-44 and alternate years, Tues. and Thurs., 1:10 to 2:30 P.M.

51-52 *Business Writing* (3-3) Veon

Fall term: letter appraisal and the principles of good writing applied to correspondence and reports, especially those in the Federal Government. Winter term: special emphasis on service, adjustment, collection, and sales letters; the writing of brief reports, and articles; study of words and vocabulary building. Prerequisite: English 1 and 2. Tues. and Thurs., 6:10 to 7:25 P.M.

54 *Secretarial Practice* (3) The Staff

Training in secretarial duties; study of secretarial equipment and supplies. Actual office experience involving the taking of dictation and the transcribing of various materials; composing business letters, reports, and other forms; preparing bills, statements, financial forms, and statistical records; filing practice. Prerequisite: Secretarial Studies 15, 22, 41-42, and 51, or the equivalent. Hours to be arranged.

Summer term 1943 (3).

57 *Review of English Usage for Government Secretaries* (2) Veon

Intensive review of grammar, punctuation, capitalization, sentence structure, etc. Text: *Government Printing Office Style Manual*, which is supplemented by style manuals of various governmental departments and agencies. Mon., 8:10 P.M.

65 *Business Law* (3)

Survey of legal problems involved in contracts, agency, negotiable instruments, sales, insurance, and partnerships. (Not to be offered in 1943-44.)

117-118 *Reporting (3-3)*

Principles and practices of reporting conferences and court testimony.  
Prerequisite: Secretarial Studies 15-16, or the equivalent; ability to take dictation at 120 words a minute. Laboratory fee, \$1.50 a term.  
Hours to be arranged.

172 *Secretarial Administrative Problems (3)*

Veon

Principles and problems involved in administering stenographic units and the supervising of stenographic personnel. Admission by permission of the instructor. Offered 1944-45 and alternate years.

## SOCIOLOGY

Carl Douglas Wells, B.D., Ph.D., *Associate Professor of Sociology*  
*Executive Officer*

*The major*—Prerequisite: Sociology 27 and 28. Required: twenty-four credit hours of second- and third-group courses in sociology. With special permission, a maximum of six credit hours of the following closely related courses may be counted toward the major: Economics 141, 142, and 146; History 171-72; Philosophy 132; Psychology 125, 151, and 154; Statistics 102. Additional courses from this list are highly recommended as electives.

### FIRST GROUP

- 27 *Organization of Society* (3) Wells  
The origin and development of culture; man's social nature; types of group and social institutions; social processes; social change and social control. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.
- 28 *Problems of Society* (3) Wells  
Population problems; psycho-physical problems; problems of race and nativity, social institutions, and social control in war and peace. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.

### SECOND GROUP

- 121 *Educational Sociology* (3) Wells  
The relation of the school to the community; school culture, social control in the school; sociological principles for the construction of the curriculum. 1943-44 and alternate years, Mon., Wed., and Fri., 7:10 P.M. 1944-45 and alternate years, Mon., Wed., and Fri., 11:10 A.M.
- 125 *Rural Sociology* (3) Wells  
The origin and development of rural culture; types of rural communities; rural social institutions and personalities; relation to city life; present rural problems and rural planning. (Not offered in 1943-44.)
- 126 *Urban Sociology* (3) Wells  
The origin and growth of cities; types of cities; their social structure, composition, functions, and problems; urban personalities and institutions; urbanization and social control; city planning. (Not offered in 1943-44.)
- 135 *Child-Welfare Problems* (3) Wells  
Social aspects of infant and child morbidity and mortality; socialization of the child through the home, play group, and school; the physically handicapped child; dependent children; child labor; juvenile delinquency. Tues. and Thurs., 7:35 to 8:50 P.M.

- 136 *Criminology* (3) Wells  
The nature, types, and distribution of crime; causes of criminal behavior; the machinery of justice; types of treatment; reformation; rehabilitation; crime-prevention programs. Field trips to local penal institutions. Tues. and Thurs., 7:35 to 8:50 P.M.
- 145 *Social Control* (3) Wells  
History of social control; social control in peace and war; the system, techniques, and fields of social control; social control and the future of civilization. (Not offered in 1943-44)
- 146 *Social Planning* (3) Wells  
Utopian social planning; sociological principles basic to sound social planning; social planning in peace and war; social planning and the New Deal; limitations of social planning. (Not offered in 1943-44)
- 151 *Social Research* (3) Wells  
Case study, life history, survey, and other tools of research will be studied; example in literature examined, and some practice given in their use. Mon., Wed., and Fri., 11:10 A.M.
- 176 *The Modern Family* (3) Wells  
Historical background, war and family; the family and development of personality; modern problems of celibacy, courtship, marriage relations, economic adjustment, parent-child relations. 1943-44 and alternate years, Mon., Wed., and Fri., 7:10 P.M. 1944-45 and alternate years, Mon., Wed., and Fri., 11:10 A.M.
- 199-200 *Proseminar for Major Students* (3-3) Wells  
Thurs., 8:10 P.M.

## THIRD GROUP

- 215-16 *Seminar* (3-3) Wells  
Community studies and other types of original research. Hours to be arranged. (Not offered in 1943-44)
- 299-300 *Thesis* (3-3) Wells



## SPEECH

Willard Hayes Yeager, A.M., *Depew Professor of Public Speaking*  
*Executive Officer*

\*Harold Friend Harding, Ph.D., *Associate Professor of Public Speaking*

\*Henry Goddard Roberts, A.M., *Assistant Professor of Public Speaking*

\*Winfield DeWitt Bennett, A.M., LL.B., *Assistant Professor of Public Speaking*

Verna Finger Torgerson, M.S., *Instructor in Speech*

Floyd Lorang Sparks, A.B., *Teaching Fellow in Play Production*

*The major.*—Required: twenty-four credit hours of second- and third-group courses. Recommended in addition: English 183-84; Philosophy 111-12 and 121; Psychology 151.

### FIRST GROUP

- 1 *Principles of Effective Speaking* (3) Yeager, Torgerson  
Short informative speeches; delivery practice; pronunciation, enunciation, and diction, impromptu speaking. Speech recordings are required. Recording fee, \$1.50. Section A: Mon., Wed., and Fri., 10:10 A.M.; section B: Mon., Wed., and Fri., 6:10 P.M.; section C: Mon., Wed., and Fri., 7:10 P.M.; section D: Tues., Thurs., and Sat., 10:10 A.M.

Speech 1X—same as Speech 1, but offered winter term. Section A: Mon., Wed., and Fri., 11:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.

Summer term 1943.

- 2 *Persuasive and Entertaining Speaking* (3) Yeager  
Special emphasis is placed on persuasive and entertaining speeches. This course is a continuation of Speech 1, which is prerequisite. Recording fee, \$1.50. Mon., Wed., and Fri., 10:10 A.M.

- 11 *Training of the Speaking Voice* (3) Torgerson  
Developing ease, naturalness, and clarity in the speaking voice. Analysis of individual voices through recordings. Phonetic training to the study of the sounds of English and the standards of speech. Close instruction in problems of rate, volume, pitch, and quality. Recording fee, \$1.50. Section A: Tues., Thurs., and Sat., 11:10 A.M.; section B: Mon., Wed., and Fri., 7:10 P.M.

- 42 *Parliamentary Law* (2) Roberts  
The correct procedure in running an organization and in conducting its meetings in an orderly and businesslike manner. (Not offered in 1943-44.)

- 61-62 *Acting* (3-3) Sparks  
Body movement; basic expression and character analysis, costume, and make-up. Recording fee, \$1.50. Tues. and Thurs., 7:25 P.M.

† On war leave 1943-44.

- 65-66 *Stagecraft* (3-3) Sparks  
Building, painting, lighting, and rigging of stage scenery. Mon., Wed., and Fri., 1:00-2 P.M.

- 71-72 *Speech Clinic* Torgerson  
Individual and group lessons for problems of voice and articulation: lisping, dialects, cleft palate speech, sound substitutions, etc. Hours to be arranged.

- 73-74 *American Speech* (2-2) Torgerson  
Class limited to foreign born students. Instruction in the formation of the sounds of spoken English, pronunciation, stress, and intonation. The International Phonetic Alphabet is used. Analysis of individual voices through recordings. Mon. 8-10 P.M.

## SECOND GROUP

- 102 *Oral Interpretation of Literature* (3) Torgerson  
Reading to others; theory and practice in the problems of communicating meaning and emotion. Selections for public reading: poetry and prose. Each student holds a lecture-recital. Recording fee, \$1.50. Tues., Thurs., and Sat., 11-12 A.M.

- 108 *Speeches for Special Occasions* (3) Yeager  
The preparation and presentation of speeches of introduction, presentation, acceptance, welcome, nomination, and eulogy. Prerequisite: three credit hours of speech. Mon., Wed., and Fri., 7-10 P.M.

- 109 *Radio Speaking* (3) Yeager, Sparks,  
Radio speeches, interviews, and discussions: news, current events and review material. Prerequisite: three credit hours of speech. Recording fee, \$1.50. Mon., Wed., and Fri., 11-1 P.M.  
Summer term 1943.

- 116 *Congressional Debate* (3) Harding  
Current public questions being debated in the House and Senate of the United States, to help in the selection of members both by committee and on the floor. Prerequisite: six credit hours of speech. (Not offered in 1943-44.)

- 121 *Argumentation and Debate* (3) Roberts  
The methods of influencing the beliefs or actions of others by means of reasoned argument; practice debates on problems and on public questions. Prerequisite: Speech I. (Not offered in 1943-44.)

- 131 *Group Thinking and Conference Leadership* (3) Yeager  
The process of thinking and problem-solving in consultation and small groups and the methods of leading discussions and conferences. Prerequisite: six credit hours of speech or permission of the instructor. Mon., Wed., and Fri., 11-1 P.M.

- 134 *Business Interviews and Speeches* (3) Yeager  
Orientation and presentation of facts and opinions for interviews; the use of interviews to obtain information. Reports, sales talks, pep talks, and discussions. Prerequisite: Speech I. (Not offered in 1943-44.)

- 145-46 *English and American Orators and Oratory* (3-3) Yeager, Roberts  
Fall term: a survey of English orators and oratory; winter term: a survey of American orators and oratory from Colonial days to recent times. Prerequisite: six credit hours of speech. 1944-45 and alternate years, hours to be arranged.
- 158 *Legal Argument* (3) Bennett  
Opening and closing addresses before juries, practice in summation and presentation of factual information, interpreting and emphasizing evidence, study of models of forensic eloquence, speech composition. Designed for pre-law students. Prerequisite: three hours of speech or Psychology 157. (Not offered in 1943-44.)
- 163-64 *Advanced Play Production* (3-3) Sparks  
Problems of play preparation, staging, directing, and character portrayal. Prerequisite: Speech 102. Also, 800-8000.
- 191-92 *History of the Theory of Public Speaking* (3-3) Harding  
Classical and English rhetorical theory, including the works of Aristotle, Cicero, Quintilian, Longinus, Wilson, Campbell, Blair, and Whately. Prerequisite: six credit hours of speech. 1944-45 and alternate years, hours to be arranged.

## THIRD GROUP

- 201-2 *Seminar* (3-3) Yeager

## STATISTICS

Frank Mark Weida, Ph.D., *Professor of Statistics, Executive Officer*

John Randolph Rigglesman, Ph.D., *Lecturer in Statistics*

Walter Frederick Crowder, Ph.D., *Lecturer in Statistics*

Solomon Kullback, Ph.D., *Lecturer in Statistics*

*Minimum requirements for the major.*—Prerequisite: Mathematics 11, 12, 19, and 20; Psychology 1 and 2; an introductory course in one of the social sciences, one of the biological sciences, or one of the physical sciences. Required: an understanding of the underlying mathematical theory employed to characterize, compare, and elucidate quantitative or qualitative measurements which are found in (1) the history of statistics, (2) characterization numbers, (3) correlation, (4) frequency distributions and time series, (5) graphical analysis, and (6) collection and presentation of statistical data. A minimum of twenty-four credit hours of second-group courses in department(s) unrelated to statistics. For further details, see the pamphlet on this subject or consult the adviser.

### FIRST GROUP

#### †1-2 *Elementary Statistics* (3-3) Kullback and Staff

Introduction to scientific method of gathering and tabulating properties and measures of attributes; elementary principles of their analysis and their limitations and interpretations in various fields of knowledge. Prerequisite: at least one entrance unit in algebra. Laboratory fee, \$5.20 a term. Lecture—Tues. and Thurs., 6-12 P.M. Laboratory—section N: Mon., 8:00 to 9:40 P.M.; section O: Tues., 8:00 to 9:40 P.M.

#### †3-4 *Theory of Investment, Social Insurance, Life Insurance* (3-3) Weida

Interest and discount; annuities; bond and stock valuation; depreciation; life annuities; life insurance premiums; reserves; unemployment and sickness benefits. Prerequisite: at least one entrance unit in algebra. (Not offered in 1943-44.)

### SECOND GROUP

#### 100 *General Statistics* (3) Weida and Staff

A survey of statistical method in business administration, biological sciences, commercial engineering, economics, education, fisheries, forestry, medical science, military science, sociology, physical sciences and psychology. Prerequisite: at least one entrance unit in algebra. Mon., Wed., and Fri., 6-10 P.M.

Statistics 100A—same as Statistics 100, but offered fall term. Tues. and Thurs., 11-1 P.M.; 1-12-25 P.M.

#### †101-2 *Economic and Sociological Statistics* (3-3) Weida and Staff

Source of data; collection and assembling of statistical tabulation; practical analysis; averages; measures of dispersion; frequency distributions; index numbers; time series; the normal curve; correlation.



Prerequisite: at least one entrance unit in algebra. Laboratory fee, \$5 a term. Lecture—section A: Mon. and Wed., 11:10 A.M.; section B: Tues. and Thurs., 6:10 to 7:10 P.M.; section C: Mon. and Wed., 7:10 P.M. Laboratory—section P: Wed., 8:00 to 9:40 P.M.; section Q: Thurs., 8:00 to 9:40 P.M.; section R: Fri., 8:00 to 9:40 P.M.; section S: Mon. and Wed., 12:10 to 1:50 P.M.

Summer term 1943.

103-4 *Statistics in Psychology and Education* (3-3)

Weida and Staff

Sources of data; assembling of statistics; tabulation; graphical analysis; averages; dispersion; frequency distributions; intelligence and achievement quotients; normal curve; correlation. Prerequisite: at least one entrance unit in algebra. Laboratory fee, \$5 a term. Lecture—Tues. and Thurs., 7:35 to 8:25 P.M. Laboratory—section O: Tues., 8:30 to 10:00 P.M.; section Q: Thurs., 8:30 to 10:00 P.M.

105 *Charts and Graphs* (3)

Riggleman

Construction, reproduction, publication, and use of statistical charts, graphs, and maps, particularly in the fields of economics, business, and sociology. Prerequisite: at least one entrance unit in algebra. Laboratory fee, \$5. (Not offered in 1943-44.)

106 *Mechanical Tabulation* (3)

Riggleman

The theory and use of the various sorting and tabulating machines; code cards and their preparation for particular and extensive types of analysis. Prerequisite: at least one entrance unit in algebra. (Not offered in 1943-44.)

107 *Index Numbers* (3)

Crowder

Types of index numbers developed and compared; methods of weighting; the reversal and circular tests; speed of calculation and other practical considerations. Prerequisite: Statistics 101-2. Tues. and Thurs., 6:10 to 7:25 P.M.

108 *Statistical Analysis of Economic Fluctuations* (3)

Crowder

Analysis of price, price movements, production, employment, cost of living; technique of analyzing business cycles and structural changes in the economy; forecast of business changes. Prerequisite: Statistics 101-2; Economics 1-2. Tues. and Thurs., 6:10 to 7:25 P.M.

†109-10 *Business and Government Statistics* (3-3)

Riggleman

External statistics; internal data; statistical technique in business; market analysis; time and wage studies; investment analysis; price statistics. Prerequisite: Statistics 1-1-2. 1944-45 and alternate years. Tues. and Thurs., 7:35 to 8:50 P.M.

111 *Applied Sampling* (3)

Riggleman

Theory of sampling; its application and limitations; detailed consideration of stratified and directed sampling; practical exercises in selection of reasonable, representative, and adequate samples. Prerequisite: Statistics 1-1-2. Tues. and Thurs., 7:35 to 8:50 P.M.

- 112 *Organization and Management in Statistical Work* (3) Riggleman  
Planning projects; estimating costs; conducting surveys; use of mechanical equipment; organization of a statistical department; selection and management of personnel. Prerequisite: Statistics 101-2. Tues. and Thurs. 7:35 to 8:55 P.M.
- 117 *Analysis of Variance* (3) Kullback  
A technique for separating from comparable groups of data the variation traceable to specific sources; a method to estimate experimental error. Prerequisite: Statistics 101-2. Mon., Wed., and Fri., 7:10 P.M.
- 118 *Advanced Economic and Sociological Statistics* (3) Kullback  
Advanced study of correlation and frequency analysis; and of sources, their uses and limitations. Prerequisite: Statistics 101-2. Mon., Wed., and Fri., 7:10 P.M.
- 134 *Factor Analysis* (3) Weida  
The resolution of mental abilities into factors; the two-factor theory; the multiple-factor theory; tetrads and tetrad differences; tetrad correlation and reliability; overlapping variables. Prerequisite: Statistics 103-4. (Not offered in 1943-44.)
- 141 *Medical Biometry and Statistics* (3) Weida  
Data and laws of human mortality, morbidity, and demography; averages; dispersion; frequency functions; sampling; correlation; chi and other tests. Prerequisite: at least one entrance unit in algebra. 1944-45, Tues., 8:10 to 9:50 P.M.
- 151 *Least Squares and Theories of Error* (3) Weida  
Moment coefficients; the normal and other error functions; Legendre's principle; practical Fourier analysis; likelihood; chi-test. Prerequisite: Mathematics 20. 1944-45 and alternate years, Mon., Wed., and Fri., 7:10 P.M.
- 152 *Curve Fitting* (3) Weida  
Empirical and graduation functions; generating function; cumulants; Thiele's semi-invariants; Pearson and other systems of curves. Prerequisite: Mathematics 20. 1944-45 and alternate years, Mon., Wed., and Fri., 7:10 P.M.
- 153 *Econometrics* (3) Weida  
Mathematical methods applied by classical and modern writers to exchange, production, supply and demand, utility and cost, and interest and taxation. Prerequisite: Statistics 101-2. Mathematics 20. 1944-45 and alternate years, Mon., Wed., and Fri., 6:10 P.M.
- †157-58 *Intermediate Theoretical Statistics* (3-3) Kullback  
Adjustments of observations; curve fitting; design of experiment; scale statistics; theory of dispersion; expectation; frequency functions; Thiele's semi-invariants; Gauss-Charlier series. Prerequisite: Mathematics 20. Mon., Wed., and Fri., 6:10 P.M.  
Summer term, 1943.

169 *History of Statistics* (3) Weida

The origin, development, and importance of various statistical conceptions; the work and life of the contributors to statistical theory and practice. Prerequisite: Statistics 151-2, 157-58, or the equivalent. Hours to be arranged.

†199-200 *Proseminar: Theoretical and Applied* Weida*Statistics* (3-3)

This course is designed to coordinate the content of the baccalaureate major. Admission by permission of the instructor. Hours to be arranged.

## THIRD GROUP

†255-56 *Probability* (2-2) Weida

Scope; classical definition, limit definition; Bayes' theorem; Bernoulli's theorem; expectation; law of large numbers; probabilities in continuous limit theorems; distribution laws. Admission by permission of the instructor. 1944-45 and alternate years, Mon., 8:10 to 9:50 P.M.

†257-58 *Advanced Theoretical Statistics* (3-3) Weida

Contour integrals; characteristic functions; matrices; quadratic forms; sampling theory; measures of relation; contingency analysis; maximum likelihood; individual differences. Admission by permission of the instructor. Mon., Wed., and Fri., 6:10 P.M.

261 *Numerical Analysis* (3) Weida

Interpolation; numerical differentiation and integration; mechanics; quadrature and cubature; numerical solution of differential and integral equations. Admission by permission of the instructor. Mon., 8:10 to 9:50 P.M.

†263-64 *Statistical Inference* (2-2) Kullback

Sample space; methods for estimating population parameters; statistical inference and its application to testing hypotheses; Neyman-Pearson theory of testing hypotheses. Admission by permission of the instructor. Tues. and Thurs., 7:35 to 8:25 P.M.

†265-66 *Multivariate Analysis* (2-2) Kullback

Multivariate normal distribution; sample variances and covariances; tests of significance; problems of estimation. Admission by permission of the instructor. (Not offered in 1943-44)

†267-68 *Characteristic Functions, Theory and Applications* (2-2) Kullback

Fourier integrals; set functions; inversion formulas; limit theorems; applications to the distribution problem in statistics. Admission by permission of the instructor. 1944-45, Tues. and Thurs., 7:45 to 8:25 P.M.

†295-96 *Seminar: Applied Statistics* (3-3) Weida

Reading and research in applied statistics. Admission by permission of the instructor. Hours to be arranged.

- †297-98 *Seminar: Theoretical Statistics (3-3)* Weida  
Reading and research in theoretical statistics. Admission by permission of the instructor. Hours to be arranged.
- †299-300 *Thesis (3-3)* The Staff  
Hours to be arranged.



## SURGERY

- Charles Stanley White, M.D., *Professor of Surgery, Executive Officer*  
 \*Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
 Harry Hyland Kerr, M.D.C.M., *Clinical Professor of Surgery*  
 Paul Stirling Putzki, M.D., *Clinical Professor of Surgery*  
 Arch Lockhart Riddick, B.S., M.D., *Clinical Professor of Surgery*  
 William Berry Marbury, M.D., *Clinical Professor of Surgery*  
 Custis Lee Hall, M.D., *Clinical Professor of Surgery*  
 Guy Whitman Leadbetter, B.S., M.D., *Clinical Professor of Surgery*  
 James Ross Veal, B.S., M.D., *Adjunct Clinical Professor of Surgery*  
 \*John Hugh Lvons, M.S., M.D., *Associate Clinical Professor of Surgery*  
 Herbert Hermann Schoenfeld, M.D., *Associate Clinical Professor of Surgery*  
 \*William Warren Sager, M.S., M.D., *Associate Clinical Professor of Surgery*  
 Francis Xavier McGovern, M.D., *Associate Clinical Professor of Surgery*  
 Benjamin Franklin Dean, Jr., M.S., M.D., *Assistant Clinical Professor of Surgery*  
 Alec Horwitz, M.S., M.D., *Assistant Clinical Professor of Surgery*  
 Cline N. Chipman, M.D., *Associate in Anesthesia*  
 Richard Knight Thompson, D.D.S., *Associate in Dental Surgery*  
 Julius Salem Neviasser, A.B., M.D., *Associate in Surgery*  
 James Lloyd Collins, A.B., M.D., *Associate in Surgery*  
 Donald Harrison Stubbs, A.M., M.D., *Associate in Surgery*  
 Edward Alexander Cafritz, M.D., *Clinical Instructor in Surgery*  
 Hazen Eugene Cole, B.S., M.D., *Clinical Instructor in Surgery*  
 Crenshaw Douglas Briggs, B.S., M.D., *Clinical Instructor in Surgery*  
 William Wiley Chase, A.B., M.D., *Clinical Instructor in Surgery*  
 William Ross Morris, M.D., *Clinical Instructor in Surgery*  
 Joseph Francis Conlon, D.D.S., *Clinical Instructor in Dental Surgery*  
 Otto Anderson Engh, A.B., M.D., *Clinical Instructor in Surgery*  
 Charles Seymour Coakley, M.D., *Clinical Instructor in Anesthesia*  
 Duane Case Richtmeyer, A.B., M.D., *Clinical Instructor in Surgery*  
 Stewart Maxwell Grayson, M.D., *Clinical Instructor in Surgery*  
 Jerome Blaine Harrell, M.D., *Clinical Instructor in Surgery*  
 Jacob Joseph Weinstein, B.S., Ph.G., M.D., *Clinical Instructor in Surgery*  
 Paula Reines Kaiser, M.B., Ch.B., *Clinical Instructor in Surgery*  
 Allen Southall Lloyd, M.D., *Clinical Instructor in Surgery*

\* On war leave 1943-44.

- 137 *First Aid* The Staff  
Lectures by the staff and practical exercises conducted by qualified Red Cross First Aid Instructors designed to enable the student to complete the "standard" course in First Aid and to appreciate the value and limitations of such training. One hour a week.
- 279-80 *General Surgery* Dean, Harrell  
Course of lectures and recitations covering surgical diseases of the neck and chest, herniae, amputations, and pre- and post-operative treatment. One hour a week for twenty-eight weeks.
- 281 *Anesthesia (elective)* Chipman  
Theoretical and practical instruction is given in the use of general and local anesthetic agents. One hour a week for nine weeks.
- 282 *Fractures and Dislocations* Leadbetter  
One hour a week.
- 283 *Surgical Technique* Marbury  
Series of demonstrations of surgical instruments and appliances. The preparation of the patient, the operating room, the materials commonly used, and the duties of each member of an operating team. One hour a week.
- 371-72 *General Surgery* Putzki, Riddick  
Course of lectures and recitations covering surgery as applied to the neck, thorax, gastro-intestinal tract, and the bones and skeletal muscles. One hour a week.
- 373-74 *Ward Walks* The Staff  
Well-organized group ward rounds are made with the visiting physicians and their respective staffs in the course of their usual rounds. Gallinger and Emergency hospitals.
- 375-76 *Surgical Clinic* The Staff  
Clinical teaching and demonstrations on the care of the various surgical diseases, with special emphasis on the pre- and post-operative management. Gallinger and Emergency hospitals.
- 379-80 *Surgical Clinic* White and Staff  
Demonstration to the entire class of the various surgical diseases, with stress upon the differential diagnosis and pre- and post-operative care. Gallinger Hospital. One hour a week.
- 381-82 *Clinical Clerkship* The Staff  
The student is assigned and required to work up thoroughly the cases for diagnosis and treatment. Gallinger and Emergency hospitals.
- 478 *Orthopedics* Hall  
Embryology, pathology, symptomatology, and treatment of congenital and acquired diseases of the bones and joints, and the clinical instruction in treatment and in the use of appliances for the correction of deformities. One hour a week.
- 481 *General Surgery* White  
One hour a week.

- 483-84 *Dispensary Clinic* The Staff  
Dispensary instruction in the principles and practice of surgery. Instruction of small groups is given in general surgery and the specialties, including anesthesia, neurosurgery, orthopedics, proctology, and oral surgery. University and Emergency hospitals.
- 485-86 *Special Problems in Surgery* Riddick, Dean  
General surgical diagnosis, with special emphasis on the diagnosis and differential diagnosis of surgical diseases and post-operative complications. One hour a week.
- 488 *Surgical Clinic* White and Staff  
Demonstration to the entire class of the various surgical diseases. One hour a week.
- 489 *Surgical Anatomy* Horwitz  
One hour a week.

## UROLOGY

Frederick August Reuter, M.D., *Professor of Urology, Executive Officer*  
 Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
 Charles Perry Howze, M.D., *Associate in Urology*  
 Gilbert Ottenberg, A.M., M.D., *Clinical Instructor in Urology*  
 William Glenn Young, M.D., *Clinical Instructor in Urology*

### 491-92 *Urology*

Reuter

Lectures covering the entire field of urology, including diagnosis, treatment, and morbid pathology. One hour a week.

### 493-94 *Clinics*

The Staff

Clinical teaching and demonstrations on the care of urological cases, with special emphasis on the pre- and post-operative management. Operative clinics and clinical teaching. Gallinger and Children's hospitals.

### 495-96 *Clinics*

Reuter and Staff

Clinical demonstrations and teaching in the dispensary, with special attention given to diagnostic procedures. Emergency and University hospitals. One part of each section daily.



## ZOOLOGY\*

Donnell Brooks Young, Ph.D., *Professor of Zoology*

Ira Bowers Hansen, Ph.D., *Associate Professor of Zoology, Executive Officer*

Edith Elizabeth Mortensen, A.M., *Assistant Professor of Zoology*

Lloyd Ancil Spindler, Sc.D., *Lecturer in Zoology*

*The major*—Prerequisite: Zoology 1-2. The student must at the end of his senior year exhibit a correlated knowledge of the following fields: (1) classification, structure, and ecological relations of animals, both invertebrate and vertebrate; (2) embryological development and life histories of important animal types; (3) general principles of physiology, heredity, and evolution; (4) the development of biological principles, hypotheses and theories as revealed in the study of the history of zoology.

The student will obtain this knowledge in part by taking courses offered in these fields and in part by individual study under the direction of his adviser. For further details, see the pamphlet on this subject or consult the adviser.

Premedical students are required to take Zoology 1-2.

### FIRST GROUP

#### 1-2 *Introduction to Zoology (4-4)*

Young, Mortensen

An introduction to the study of the structure, functions, and relations of animals, and of the fundamental biological principles involved. Material fee, \$4.50 a term. Section A: Tues. and Thurs., 9:10 A.M. to 11:10 A.M.; section B: Mon. and Wed., 6:10 P.M. Laboratory—section M: Tues. and Thurs., 11:10 A.M. to 1:00 P.M.; section N: Tues. and Thurs., 1:40 to 3:30 P.M.; section O: Mon. and Wed., 8:00 to 10:00 P.M.

Summer term 1943

#### †5-6 *Field Zoology (3-3)*

Mortensen

Summer term—1944 and alternate summers. Material fee, \$4.50 a term. Mon., Wed., and Fri., 6:10 to 9:10 P.M. and occasional Sat. or Sun. afternoons.

### SECOND GROUP

#### 101-2 *Invertebrate Zoology (3-3)*

Mortensen

A systematic study of invertebrate forms, including the study of morphology, classification, life histories, and phylogenetic relationships. Occasional field trips. Prerequisite: Zoology 1-2 or Biology 101. Material fee, \$4.50 a term. 1943-44 and alternate years: Mon. and Fri., 1:40 to 4:30 P.M. 1944-45 and alternate years: Tues. and Thurs., 7:25 to 10:15 P.M.

#### 134 *Ornithology (3)*

The birds of eastern North America. Material fee, \$4.50. (Not offered in 1943-44.)

\* See also the departments of Biology and Botany, pages 156 and 158.

- 137 Histology (3) Young**  
An introduction to the microscopical anatomy of normal tissues and organs. Prerequisite: Zoology 1-2. Material fee, \$6. Fri., 7:10 P.M. Laboratory—Mon. and Wed., 7:00 to 9:00 P.M.
- 141-42 Comparative Vertebrate Anatomy (3-3) Hansen**  
Lectures on the organ systems of the vertebrates; laboratory dissections of types. Prerequisite: Zoology 1-2. Zoology 141, material fee, \$6; Zoology 142, material fee, \$4.50. Section A: Mon., 1:40 to 4:30 P.M.; Fri., 7:10 to 9:00 P.M. Laboratory—Section M: Mon., 2:40 to 4:30 P.M. and Wed., 1:40 to 3:30 P.M.; section N: Mon. and Wed., 7:00 to 9:00 P.M.  
Summer term 1943.
- 144 Introduction to Vertebrate Embryology (3) Hansen**  
The origin and early development of the individual and the formation of organ systems. Emphasis is placed on the frog, chick, and pig, with reference to the human embryo. Prerequisite: Zoology 1-2, and 141 or 142. Material fee, \$8. Tues., 1:40 P.M. Laboratory—Tues., 2:40 to 4:30 P.M. and Thurs., 1:40 to 3:30 P.M.  
Zoology 144A—same as Zoology 144 but offered fall term, Tues., 7:25 to 10:15 P.M. and Thurs., 7:35 to 9:15 P.M.
- 147-48 Experimental Morphology (3-3) Hansen**  
Lectures and class reports on experimental morphology. Prerequisite: Zoology 141-42 or the equivalent. 1943-44 and alternate years, Mon., Wed., and Fri., 6:10 P.M.
- 156 Parazitology (3) Spindler**  
An introduction to the study of animal parasitology, with a survey of parasitic types from protozoa through arthropods. Prerequisite: Zoology 1-2 or the equivalent. Material fee, \$6. Tues. and Thurs., 7:35 to 10:15 P.M.
- 171-72 Special Problems (3-3) The Staff**  
Written approval of the instructor is required. Hours to be arranged. Material fee, \$6 a term.
- 199-200 Proseminar (3-3) The Staff**  
A course designed to correlate and supplement the work of zoology majors. Hours to be arranged.
- 203-4 Seminar in Invertebrate Zoology (3-3) Young**  
Hours to be arranged.
- 241-42 Protozoa (3-3) Young**  
An introduction to the protozoa: classification, life histories, and physiology, with special emphasis on free-living types. Material fee, \$4.50 a term. Hours to be arranged.
- 251-52 Seminar in Vertebrate Zoology (3-3) Hansen**  
Hours to be arranged.
- 253-54 Research The Staff**  
Investigation of special problems. Hours and credits to be arranged.  
Summer term 1943.
- 299-300 Thesis (3-3) The Staff**  
Summer term 1943.



UNIVERSITY ORGANIZATIONS





## ALUMNI AND ALLIED ASSOCIATIONS

### THE GENERAL ALUMNI ASSOCIATION

The objects of this Association are to unite the graduates in closer sympathy and to promote the general welfare of the University. The following persons are eligible for *active* membership: graduates of any college, school, or division of the University; holders of honorary degrees from the University; and members of the Board of Trustees and of the Faculty of the University. Any person who has matriculated, who has been in regular attendance for one year, and who has left the University in good standing, is eligible for *associate* membership.

The office of the Executive Secretary of the Association is located on the first floor of Columbian House of the University. Alumni are urged to keep the Secretary informed of changes of address or occupation and to supply information with regard to their fellow alumni.

1942-43

*President*.—George W. Neville, LL.B. 1929 (A.B. 1923, University of the South); Shoreham Building, Washington, D. C.

#### *Vice Presidents:*

*Columbian College*.—J. Foster Hagan, A.B. 1923, LL.B. 1927; 1423 N. Court House Road, Arlington, Va.

*Graduate Council*.—Joseph H. Roe, Ph.D. 1928 (A.B. 1916, Roanoke College; A.M. 1917, Princeton University); 1352 Jefferson Street, Washington, D. C.

*School of Medicine*.—William Earl Clark, M.D. 1904; 4929 Rockwood Parkway, Washington, D. C.

*Law School*.—

*School of Engineering*.—William J. Ellenberger, B.S. in E.E. 1930, B.S. in M.E. 1934; 6524 Luzon Ave., Washington, D. C.

*School of Pharmacy*.—Malcolm G. Gibbs, Phar.D. 1902; 77 P Street, Washington, D. C.

*School of Education*.—Sara Lerch Fillebrown (Mrs. Herbert M. Fillebrown), A.B. and B.Dip. in Ed. 1927, A.M. 1928; 815 N. Oleander Ave., Daytona Beach, Fla.

*School of Government*.—Ross P. Pope, A.B. in Govt. 1937; 309 Cameron Street, Alexandria, Va.

*Dental School*.—William M. Sweet, D.D.S. 1918; 1835 I Street, Washington, D. C.

*Treasurer.*—Margaret M. Neumann, A.B. 1928; 6 East Woodbine Street, Chevy Chase, Md.

*Executive Secretary.*—Lester Allan Smith, A.B. in L.S. 1932, A.M. in L.S. 1935; 2456 20th Street, Washington, D. C.

*Executive Committee:*

Charles S. Baker, LL.B. 1914 (A.B. 1911, Cornell University, A.M. 1912, Columbia University); Munsey Building, Washington, D. C.

William M. Ballinger, A.B. 1921, M.D. 1924; 4923 Hillbrook Lane, Washington, D. C.

C. Oscar Berry, LL.B. 1932, A.B. 1933; 1100 H Street, Washington, D. C.

Hugh H. Clegg, LL.B. 1926 (A.B. 1920, Millsaps College); Department of Justice Building, Washington, D. C.

Jessie Fant Evans (Mrs. Joshua Evans, Jr.), A.B. and T.D. (w. d.) 1913, Ed.D. 1932; 3405 Lowell Street, Washington, D. C.

Robert H. Harmon, M.D. 1929 (A.B. 1915, Millsaps College); 1158 Connecticut Avenue, Washington, D. C.

Chester W. Holmes, Ed.D. 1936 (B.S. 1916, Ed.M. 1924, Harvard University); Franklin Administration Building, Washington, D. C.

John Littlepage, LL.B. 1926; Investment Building, Washington, D. C.

W. Ward McCabe, A.B. 1940; 3719 Harrison Street, Washington, D. C.

W. Henry Seaquist, B.S. in M.E. 1927; 219 Rittenhouse Street, Washington, D. C.

Frank H. Weitzel, A.B. 1931, LL.B. 1935; 2914 Tennyson Street, Washington, D. C.

THE GEORGE WASHINGTON UNIVERSITY MEDICAL SOCIETY

The George Washington University Medical Society, the organization of graduates of the School of Medicine, was established in 1905 and since 1926 has been affiliated with the General Alumni Association. The objects of the Society, as stated in the Constitution are "The promotion of the science and art of medicine and the welfare of the School of Medicine".

1942-43

*President.*—William Earl Clark, M.D. 1904; 5220 Partridge Lane, Washington, D. C.

*President-Elect.*—William M. Ballinger, A.B. 1921, M.D. 1924; 4923 Hillbrook Lane, Washington, D. C.

*First Vice President.*—Clyde P. Reeves, M.D. 1933; 1028 Connecticut Avenue, Washington, D. C.

*Second Vice President.*—Petrena Abbe Shea, M.D. 1936; 1028 Connecticut Avenue, Washington, D. C.

*Secretary-Treasurer.*—Oscar B. Hunter, M.D. 1912, A.B. 1916, A.M. 1917; 1835 I Street, Washington, D. C.

*Council:*

Leslie H. French, M.D. 1924; 1726 I Street, Washington, D. C.

Herman S. Hoffman, A.B. 1921, M.D. 1924; 1718 Rhode Island Avenue, Washington, D. C.

Howard F. Kane, M.D. 1912 (A.B. 1909, Bowdoin College); 4941 Glenbrook Road, Washington, D. C.

Arnold McNitt, M.D. 1925, B.S. in Med. 1925, A.M. 1928; 3117 Hawthorne Street, Washington, D. C.

Charles Stanley White, M.D. 1898; 1801 I Street, Washington, D. C.

(Officers of the Society are ex officio members of the Council.)

THE GEORGE WASHINGTON LAW ASSOCIATION

The George Washington Law Association, the organization of graduates of the Law School, was founded in 1912 and has been affiliated with the General Alumni Association since 1920. Its purposes as stated in the constitution are to promote high standards of legal education, to keep the alumni of the Law School in closer touch with one another and especially with members of their own classes, to gather and publish at intervals information as to the whereabouts and activities of these alumni, and to further the interests of the Law School.

1942-43

*President.*—C. Oscar Berry, LL.B. 1932, A.B. 1933; 1100 H Street, Washington, D. C.

*First Vice President.*—Mary M. Connelly, LL.B. 1922; 1700 T Street, Washington, D. C.

*Second Vice President.*—Howard P. Locke, LL.B. 1927 (B.S.C. 1923, Washington College of Accountancy); Tax Division, Department of Justice, Washington, D. C.

*Third Vice President.*—Charles R. Allen, Ex-1920; Washington Loan and Trust Building, Washington, D. C.

*Secretary-Treasurer.*—Frank H. Weitzel, A.B. 1931, LL.B. 1935; 2914 Tennyson Street, Washington, D. C.

*Executive Committee:*

Mary Agnes Brown, A.B. 1924, LL.B. 1932, S.J.D. 1942; 4606 15th Street, Washington, D. C.



Stanley P. Smith, LL.B. 1928; 844 Shoreham Building, Washington, D. C.

Charles E. Pledger, Jr., LL.B. 1927; 1715 Crestwood Drive, Washington, D. C.

John W. Townsend, LL.B. 1920, LL.M. 1921; 1366 National Press Building, Washington, D. C.

#### THE LIBRARY SCIENCE ALUMNI ASSOCIATION

The Library Science Alumni Association was organized in 1932 by graduates of the Division of Library Science and became an affiliate of the General Alumni Association in 1935. It was established to foster a closer relationship between the Faculty and graduates and to further the interests of the Division of Library Science and of the University as a whole.

1943-44

*President.*—William H. Heers, A.B. in L.S. 1937 (A.B. 1930, Whitman College); 508 Maple Ridge Road, Bethesda, Md.

*Vice President.*—A. Marguerite Matthews, A.B. 1937, A.B. in L.S. 1939; 9214 Midwood Road, Silver Spring, Md.

*Secretary.*—Virginia C. Whitney, A.B. in L.S. 1930; 3023 Rodman Street, Washington, D. C.

*Treasurer.*—Martha R. Schmidt, Ex-1938 (A.B. in Ed. 1930, A.B. in L.S. 1937, University of Michigan); 35 Bryant Street, Washington, D. C.

#### THE ENGINEER ALUMNI ASSOCIATION OF THE GEORGE WASHINGTON UNIVERSITY

The Engineer Alumni Association was organized in 1936 and has been affiliated with the General Alumni Association since that time. Its objects are to unite the graduates and Faculty of the School of Engineering in closer fellowship, to promote the general welfare of the School of Engineering and of the University at large, to foster activities of the engineering organizations recognized by the University, and to advance the profession of engineering in general.

1942-43

*President.*—W. Henry Seaquist, B.S. in M.E. 1927; 219 Rittenhouse Street, Washington, D. C.

*Vice President.*—Lewis W. Klopfer, B.S. in Eng. 1931; 1410 Locust Road, Washington, D. C.

*Recording Secretary.*—

*Corresponding Secretary.*—T. Ritchie Edmonston, B.S. in C.E. 1937; 606 Pickwick Lane, Chevy Chase, Md.

*Executive Committee:*

Roy F. Carty, B.S. in M.E., 1911, M.E. 1912; 1608 14th Street, Washington, D. C.

Arthur R. Eno, B.S. in Eng. 1933; 3230 Wheeler Road, Washington, D. C.

Otis L. Turner, B.S. in M.E. 1932; West Falls Church, Va.

THE GEORGE WASHINGTON UNIVERSITY NURSES ASSOCIATION

The George Washington University Nurses Association was organized in 1914. In 1936 this organization was made an integral part of the General Alumni Association, and graduates of the School of Nursing were accorded associate membership. The objects of the Association are to hold in unison the graduates of the George Washington University Hospital School for Nurses, to care for its sick members, and to promote the advance of nursing in the interest of the George Washington University Hospital.

1942-43

*President.*—Louva Neff Baker, N.Cert. 1919; 1361 Iris Street, Washington, D. C.

*Vice President.*—Pauline Tarpley, N.Cert. 1931; 1228 Eye Street, Washington, D. C.

*Secretary.*—Edith M. Billheimer, N.Dip. 1925; 1426 M Street, Washington, D. C.

*Treasurer.*—Mrs. Claudine Thomas, N.Cert. 1927; 1714 Adams Street, Arlington, Va.

REGIONAL ALUMNI CLUBS

1942-43

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF ARKANSAS

*President.*—

*Vice-President.*—Walter L. Brown, LL.B. 1920; Courthouse, El Dorado, Ark.

*Secretary-Treasurer.*—H. Howard Cockrill, LL.B. 1933 (B.S. 1931, University of Virginia); 825 Pyramid Building, Little Rock, Ark.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF BALTIMORE**

*President.*—L. Preble Marmion, A.B. 1927; 528 Nottingham Road, Ten Hills, Baltimore, Md.

*Secretary.*—Marie O'Dea, A.B. and M.S. in Chem. 1923; 230 South Monastery Avenue, Baltimore, Md.

*Treasurer.*—Archibald L. Russell, A.B. 1928; Windsor Court Apartments, Baltimore, Md.

**Scholarship Committee:**

Gladys T. Hopkins, A.B. and B.Dip. in Ed. 1922 (A.M. 1931, Columbia University); 2936 McElderry Street, Baltimore, Md.

Charles Silver, LL.B. 1916 (B.Chem. 1911, Cornell University; M.P.I. 1917, Georgetown University); 821 Calvert Building, Baltimore, Md.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF CHICAGO**

*President.*—Samuel W. Kipnis, LL.B. 1926; 1414 Monadnock Building, 53 West Jackson Boulevard, Chicago, Ill.

*Vice President.*—Louis A. Bisson, LL.B. 1915, LL.M. 1916 (M.P.L. 1916, Georgetown University); 3032 Park Place, Evanston, Ill.

*Secretary.*—Ruth H. Manasse (Mrs. DeWitt J. Manasse), LL.B. 1922; 111 West Washington Street, Chicago, Ill.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF CINCINNATI**

*President.*—

*Secretary.*—Charles N. Moore, M.S. 1905, Sc.D. 1932 (A.B. 1903, University of Cincinnati; Ph.D. 1908, Harvard University); University of Cincinnati, Cincinnati, Ohio.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF CLEVELAND**

*President.*—George D. Bonebrake, A.B. 1924, LL.B. 1926; 1759 Union-Commerce Building, Cleveland, Ohio

*Vice President.*—Emanuel M. Davidove, LL.B. 1923, LL.M. 1924; N. B. C. Building, Cleveland, Ohio

*Secretary-Treasurer.*—Lucille M. Wunderlich, LL.B. 1925; 1001 Huron Road, Cleveland, Ohio

**Executive Committee:**

James T. Hoffman, LL.B. 1931 (B.S. in E.E. 1926, University of Pittsburgh); 10507 Lake Avenue, Cleveland, Ohio

Glenn R. Lawrence, B.S. in C.E. (w. d.) 1910, C.E. 1911; 3401 Cedarbrook Road, Cleveland, Ohio

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF DALLAS

*President.*—Michael P. McKool, A.B. 1942; 2719 Denley Drive, Dallas, Texas

*Vice President.*—

*Secretary-Treasurer.*—Earl E. Miller, LL.B. 1923; 3835 Opal Avenue, Dallas, Texas

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF DENVER

*President.*—

*Secretary-Treasurer.*—Ronald A. Silver, A.B. 1925; Box 900, Denver, Colo.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF DETROIT

*President.*—Franklin C. Knock, LL.B. 1922; 9th Floor, David Statt Building, Detroit, Mich.

*Vice President.*—

*Secretary-Treasurer.*—Louis M. Hopping, A.B. 1924, LL.B. 1927; 11996 Indiana Avenue, Detroit, Mich.

*Corresponding Secretary.*—Laurette McKendree, A.B. 1921; 246 Madison Street, Detroit, Mich.

*Publicity Agent.*—Karl B. Lutz, LL.B. 1924, M.P.L. 1925 (A.B. 1920, Bethany College, West Virginia); 680 Rivenak, Birmingham, Mich.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
KANSAS CITY

*President.*—Edward L. Scheufler, A.B. 1922, LL.B. 1924; 1503 Commerce Building, Kansas City, Mo.

*Vice President.*—Joseph A. Horigan, Phar.D. 1885; M.D. 1888; 5 East 54th Terrace, Kansas City, Mo.

*Secretary.*—

*Treasurer.*—Albert F. Hillix, LL.B. 1924 (A.B. 1920, University of Missouri); 1007 Bryant Building, Kansas City, Mo.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
LOS ANGELES

*President.*—Byron Coon, LL.B. 1903; 417 South Hill Street, Los Angeles, Calif.

*Secretary-Treasurer.*—



THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
MILWAUKEE

*President.*—Eleanor S. Cushing, M.D. 1916; 1432 North Humboldt Avenue, Milwaukee, Wis.

*Vice President.*—Morris L. Stern, LL.B. 1906; 1147 Empire Building, Milwaukee, Wis.

*Secretary.*—Arnold C. Otto, A.B. 1911, LL.B. 1913 (A.B. 1911, Lawrence College); 740 North Plankenton Avenue, Milwaukee, Wis.

*Treasurer.*—William C. Lyon, LL.B. 1922, LL.M. 1923; 2636 North 66th Street, Wauwatosa, Wis.

*Director.*—Herbert W. Cornell, LL.B. 1919 (A.B. 1908, University of Colorado); Civil Service Commission, Milwaukee, Wis.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF NEBRASKA

*President.*—Olat W. Osnes, LL.B. 1922; 400 Brandeis Theatre Building, Omaha, Nebr.

*Vice President.*—

*Secretary-Treasurer.*—Howard Kennedy III, LL.B. 1935; First National Bank Building, Omaha, Nebr.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
NEW ENGLAND

*President.*—Richard J. Shea, A.B. 1924; 50 Shawmut Street, Lawrence, Mass.

*Vice President.*—Maurice Palais, LL.B. 1912; 16 Court Street, Boston, Mass.

*Secretary-Treasurer.*—Eleanor V. Smith, A.B. in L.S. 1933; 49 Commonwealth Avenue, Boston, Mass.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF NEW YORK

*President.*—A. Bruce Bielaski, LL.B. 1904; 85 John Street, New York, N. Y.

*Vice President.*—

*Second Vice President.*—Nelson Littell, A.B. 1920, LL.B. 1922; 22 East 40th Street, New York, N. Y.

*Vice President in Charge of Scholarship.*—George H. Baston, A.B. 1914; 60 Beaver Street, New York, N. Y.

*Secretary.*—Elsie B. Jansen, LL.B. 1930 (A.B. 1927, Wellesley College); 108 Washington Place, New York, N. Y.

*Treasurer.*—George H. Mortimer, J.D. 1938 (B.S. 1925, Brigham Young University); 67 Wall Street, New York, N. Y.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
NORTHERN CALIFORNIA**

*President.*—William S. Graham, M.P.L. 1908 (LL.B. 1906, LL.M. 1907, National University); Crocker Building, San Francisco, Calif.  
*Secretary.*—William H. Atkinson, Ex-1926; 582 Market Street, San Francisco, Calif.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
OKLAHOMA CITY**

*President.*—Angelo C. Scott, LL.B. and LL.M. 1885 (A.B. 1877, A.M. 1880, University of Kansas; Litt.D. 1916, College of Emporia); 310 Northwest 16th Street, Oklahoma City, Okla.  
*Secretary.*—Harry B. Gilstrap II, A.B. 1925; 2008 Northwest 20th Street, Oklahoma City, Okla.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
PHILADELPHIA**

*President.*—William E. Zimmerman, A.B. 1922; Lazy Creek Farm, Lansdale, Pa.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF THE  
PHILIPPINE ISLANDS**

*President.*—Professor Lino J. Castillejo, A.B. and B.Ed. in Ed. 1919, A.M. 1920; Malacanan Palace, Manila, P. I.  
*Secretary-Treasurer.*—Paterno C. Villanueva, A.B. 1925, A.M. 1927; University of the Philippines, Manila, P. I.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
PITTSBURGH**

*President.*—William H. Parmelee, LL.B. 1918 (LL.M. and M.P.L. 1920, Georgetown University); 1319 Farmers Bank, Pittsburgh, Pa.  
*Secretary.*—Alice S. Andrews, A.B. 1923 (A.M. 1934, University of Pittsburgh); 603 Broad Street, Sewickley, Pa.

**THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
PORTLAND**

*President.*—Cleo Calvin Spears, Ex. 1919-22; Oswego, Oreg.  
*Vice President and Secretary.*—Herbert W. White, LL.B. 1911; 614 Mead Building, Portland, Oreg.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF  
PUERTO RICO

*Honorary President.*—William Thornwall Davis, M.D. 1901 (Graduate 1902, U. S. Army Medical School); 927 Farragut Square, Washington, D. C.

*President.*—Ramón C. Ruiz-Nazario, M.D. 1918; San Juan, P. R.

*Vice President.*—Rafael Rivera-Aulet, M.D. 1916; Hospital Avenue, Arecibo, P. R.

*Secretary.*—Wilson P. Colberg, LL.M. 1927 (LL.B. 1926, University of Puerto Rico); Rio Piedras, P. R.

*Treasurer.*—Ricardo F. Fernández, M.D. 1931; P. O. Box 673, San Juan, P. R.

*Permanent Delegate at Washington.*—Tomás Cajigas, M.D. 1918, B.S. in Med. 1919, M.S. 1921; 1801 I Street, Washington, D. C.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF RICHMOND

*President.*—John A. Rollings, M.D. 1912; 923 West Franklin Street, Suite 104, Richmond, Va.

*Secretary.*—John K. Hyde, A.B. 1929; 1319 Nottoway Avenue, Richmond, Va.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF ST. LOUIS

*Secretary.*—Phineas H. Lamphere, LL.B. 1931 (B.S. in E.E. 1927, University of Idaho); 208 North Broadway, St. Louis, Mo.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF SAN  
FRANCISCO—SEE THE GEORGE WASHINGTON UNIVERSITY ALUMNI  
CLUB OF NORTHERN CALIFORNIA

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF SEATTLE

*President.*—Oscar A. Zabel, LL.B. 1926; Fourth & Pike Building, Seattle, Wash.

*Secretary.*—

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF TOLEDO

*President.*—LaDow Johnston, LL.B. 1929 (A.B. 1925, University of Kansas); Suite 807, Second National Bank Building, Toledo, Ohio

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF TULSA

*President.*—

*Vice President.*—

*Secretary.*—Lela Howard Wood (Mrs. Robert H. Wood), Ex-1910;  
217 East 24th Street, Tulsa, Okla.

THE GEORGE WASHINGTON UNIVERSITY ALUMNI CLUB OF UTAH

*President.*—William F. Beer, M.D. 1892: 181 B Street, Salt Lake City,  
Utah

*Vice President.*—John Jensen, LL.B. 1909 (A.B. 1906, University of  
Utah); 920 Continental Bank Building, Salt Lake City, Utah

GOVERNMENT CLUBS

THE GEORGE WASHINGTON UNIVERSITY INTERIOR CLUB

*President.*—Samuel J. Flickinger, LL.B. 1918 (LL.M. 1919, M.P.L.  
1919, Georgetown University; D.C.L. 1922, American University);  
U. S. Indian Office, Chicago, Ill.

*Vice President.*—

*Secretary.*—

THE GEORGE WASHINGTON UNIVERSITY JUSTICE CLUB

*President.*—Howard P. Locke, LL.B. 1927 (B.C.S. 1923, Washington  
College of Accountancy); Tax Division, United States Department  
of Justice, Washington, D. C.

*Vice President.*—

*Secretary.*—Joseph A. Connors, Jr., LL.B. 1937: 4316 Windom Place,  
Washington, D. C.

THE GRADUATE ENDOWMENT FUND

The Graduate Endowment Fund was founded by the class of 1926 with the object of providing endowment to be used for the development of the University. Membership is limited to seniors and graduates who sign a pledge of \$100, payable annually in ten equal installments.

The pledge notes and funds are held in trust. When the principal reaches the sum of \$100,000, the Board of Administrators of the Fund may pay to the University such sums as it may vote for erection of buildings, acquisition of sites, maintenance, and purchase of equipment.



At no time may money be drawn so as to leave a balance of less than \$50,000 on deposit.

On request, the Alumni Secretary of the University will furnish pledge blanks to alumni.

#### BOARD OF ADMINISTRATORS\*

*Chairman.*—Ludwig Caminita, Jr., B.S. 1934, A.M. 1937; 501 North Lincoln Street, Arlington, Va.

*Vice Chairman.*—Margaret Maize Boaz (Mrs. J. Noble Boaz), A.B. 1928; 15 Old Chester Road, Bethesda, Md.

#### *Members:*

Kenneth C. Beede, A.B. 1927; 4 Cleave Drive, Falls Church, Va.  
Wilhelmina Gude Hussey (Mrs. Hugh Hussey), A.B. in Ed. 1931;  
5935 3d Street, Washington, D. C.

Arthur F. Johnson, M.E. 1915 (Ph.D. 1938, University of Michigan);  
1021 Oakcrest Road, Arlington, Va.

*Executive Secretary.*—Lester Allan Smith, A.B. in L.S. 1932, A.M. in L.S. 1935; The University

#### THE COLUMBIAN WOMEN

The objects of this organization are (1) the promotion of acquaintance among its members; (2) the advancement of women by the founding of scholarships in the various departments of the University, and by every other possible means; and (3) the promotion of the interests of the University in every way.

#### MEMBERSHIP

1. The following persons shall be eligible for active membership:
  - (a) any woman who for one year has been a regularly registered student in The George Washington University; provided that she shall have received credit for thirty hours of work;
  - (b) any woman member of the Faculties, Council, or Board of Trustees, any woman on the administrative staff; the wife or recognized head of the household of any member of the Faculties, Council, Board of Trustees, or of the administrative staff;
  - (c) any woman recipient of an honorary degree from the University.
2. The following persons shall be eligible for associate membership:
  - (a) any graduate woman student upon her registration in the University;
  - (b) the wife of any graduate student upon the registration of the latter in the University.

Associate members shall have all privileges and obligations of membership except those of voting and holding office.

\* Elected by the subscribers.

1942-43

*President.*—Meta F. Eldridge (Mrs. Watson W. Eldridge, Jr.); Staff House, No. 6, St. Elizabeths Hospital, Congress Heights, D. C.

*First Vice President.*—

*Second Vice President.*—Alice H. Drake, Ex-1918; 1410 Girard Street, Washington, D. C.

*Recording Secretary.*—Elise W. Kissling, A.B. (w. d.) 1929, A.B. in L.S. 1934; 309 Newport Avenue, Westgate, Friendship Station, D. C.

*Treasurer.*—Mrs. Thomas B. Brown (A.B. 1917, Cornell University); 2810 23d Street, Arlington, Va.

*Assistant Treasurer.*—Florence Taylor Handy (Mrs. John B. Handy); A.B. 1914; 100 5th Street, Washington, D. C.

*Historian.*—Emma A. Buechele, A.B. 1928; 1615 Kenyon Street, Washington, D. C.

## HONOR SOCIETIES

*Phi Beta Kappa.*—A national honor society recognizing "outstanding intellectual capacity well employed" in the field of liberal arts and sciences. Senior and junior students who are candidates for the degree of Bachelor of Arts or Bachelor of Science in Columbian College (in exceptional cases, senior and junior students in other non-professional divisions of the University) and who have shown broad cultural interest, distinguished scholarly achievement, high character, general promise, and scholarly ideals may, to a number not exceeding 15 per cent of a class, be elected to membership by the Faculty members of the Alpha Chapter of the District of Columbia.

*Sigma Xi.*—A national scientific honor society, the purpose of which is to encourage original investigation in science pure and applied. Outstanding graduate students in the sciences are eligible for full membership, and undergraduates who have shown marked ability in research may be elected to associate membership.

*Order of the Coif.*—A national legal society, the purpose of which is to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship. Members are elected each year from the highest 10 per cent of the graduating class of the Law School.

*Sigma Tau.*—A national engineering fraternity, the purpose of which is to recognize scholarship and professional attainment.

---

*Alpha Lambda Delta.*—A national fraternity established to encourage and reward high scholarship and attainment, membership in which is limited to those freshman women who attain a scholastic average of at least 3.50.

*Artus.*—A national economics society.

*Delta Sigma Rho.*—A national forensic honor society.

*Gate and Key.*—An interfraternity society.

*Iota Sigma Pi.*—A national honorary chemical society for women.

*Kappa Kappa Psi.*—A national honorary fraternity, the purpose of which is to encourage good fellowship, leadership, scholarship, and musical ability among college band members.

*Mortar Board.*—A national honorary society for senior college women stressing leadership, scholarship, and service.

*Omicron Delta Kappa*.—A national fraternity emphasizing leadership in extracurricular activities.

*Phi Delta Kappa*.—A national honorary fraternity for men in the field of education.

*Phi Eta Sigma*.—A national fraternity established to encourage and reward high scholarship and attainment, membership in which is limited to those freshman men who attain a scholastic average of at least 3.50.

*Pi Gamma Mu*.—A national social-science society.

*Pi Lambda Theta*.—A national honorary fraternity for women in the field of education.

*Sigma Gamma Epsilon*.—A national honorary geology fraternity.

*Sigma Pi Sigma*.—A national honorary physics fraternity.

*Sigma Rho*.—Honorary research society in physiology.

*Smith-Reed Russell Society*.—A scholastic society in the School of Medicine. Students of the third and fourth years who maintain a scholastic average of 86 per cent are eligible for associate membership.

*William Beaumont Medical Society*.—A society founded with the object of encouraging and stimulating medical students in work of individual investigation.



## STUDENT ORGANIZATIONS

### PROFESSIONAL FRATERNITIES

Alpha Chi Sigma (chemistry), Alpha Epsilon Iota (medicine), Alpha Kappa Kappa (medicine), Alpha Kappa Psi (commerce and economics), Alpha Pi Epsilon (home economics), Chi Upsilon (geology), Delta Phi Epsilon (foreign service), Delta Theta Phi (law), Kappa Beta Pi (law), Mortar and Pestle (pharmacy), Nu Sigma Nu (medicine), Phi Alpha Delta (law), Phi Chi (medicine), Phi Delta Delta (law), Phi Delta Epsilon (medicine), Phi Delta Gamma (graduate), Phi Delta Phi (law), Phi Pi Epsilon (foreign service), Phi Sigma Rho (philosophy), Pi Delta Epsilon (journalism), Theta Tau (engineering).

### SOCIAL FRATERNITIES

Sigma Chi, Kappa Sigma, Kappa Alpha, Theta Delta Chi, Phi Sigma Kappa, Sigma Alpha Epsilon, Sigma Phi Epsilon, Phi Alpha, Sigma Nu, Acacia, Tau Kappa Epsilon, Tau Alpha Omega, Pi Kappa Alpha.

### SOCIAL SORORITIES

Pi Beta Phi, Chi Omega, Sigma Kappa, Phi Mu, Alpha Delta Pi, Delta Zeta, Kappa Delta, Phi Sigma Sigma, Zeta Tau Alpha, Kappa Kappa Gamma.

### DEPARTMENTAL CLUBS

Aesculapian Society (pre-medical), Student Bar Association, American Society of Civil Engineers, American Institute of Electrical Engineers, The Engineering Council, Le Cercle Francais Universitaire, El Club Español, Charles Clinton Swisher History Club, Home Economics Club, American Society of Mechanical Engineers, A. F. A. King Obstetrical Society, Psychology Club, Schoenfeld Verein, Lester F. Ward Sociological Society, Orchestis, Portuguese Club, Student Branch American Pharmaceutical Association.

### RELIGIOUS ORGANIZATIONS

Baptist Student Union, B'nai B'rith Hillel Foundation, Canterbury Club, Christian Science Organization, Luther Club, Newman Club, Wesley Club, Westminster Club.

MUSICAL ORGANIZATIONS

Girls' Glee Club, Men's Glee Club, Symphonic Club, University Band.

STUDENT PUBLICATIONS

*The Cherry Tree* (the annual), *The University Hatchet* (weekly newspaper), *The George Washington Law Review*.

OTHER ACTIVITIES

Colonial Campus Club, Cue and Curtain Club (dramatics), Debate Council, Interfraternity Council, Interfraternity Pledge Council, International Students Society, Junior Panhellenic Council, Masonic Club, Panhellenic Council, Student Council, Varsity Lettermen's Club, Women's Athletic Association, Women's Fencing Club.



## INDEX





## INDEX

Academic Council, xvii-xviii  
 Academic status of the University, 5  
 Admission:  
     Courses in, 161, 162, 163  
     Degrees in, 131, 135  
     Junior Certificate in, 53  
 Admission, student, 42  
 Administrative officers of, xxi  
 Admission, 1-18  
 Alumni, Junior College, 47, 48  
 Alumni and aided students, 283-95  
 Anatomy, courses in, 149  
 Art, courses in, 15-52  
 Bacteriology, courses in, 153-54  
 Biology, courses in, 155  
 Botany, courses in, 156-57  
 Business, courses in, 158-59  
 Buildings of the University, 7-8  
 Business Administration:  
     Courses in, 158-59  
     Curriculum, 134  
 Calendar for 1943-44, ix-xiv  
 Chemistry, 41  
 Chemistry, courses in, 164-68  
 Civil Engineering:  
     Bachelor's degree in, 99-101  
     Courses in, 169-71  
 Classical Languages and Literatures,  
     courses in, 172  
 Classification of students, 17-18, 53  
     1-62, 93, 127-28  
 College Entrance Board examinations,  
     11  
 Colleges, Schools, and Divisions, 5,  
     43-44  
 Columbian College (senior college of  
     liberal arts), 57-70  
 Columbian Women Scholarship funds,  
     28  
 Communication Option in Electrical  
     Engineering, 192  
 Courses of Instruction, 145-279  
 Credit:  
     Explanation of amount of, 148  
     Toward a degree, 37-38  
 Degrees:  
     Bachelor of Arts, 62-67  
     In Education, 115-17

### Degrees—Continued

Bachelor of Arts—Continued  
     In Government, 128-29, 131-35  
 Bachelor of Civil Engineering, 99-101  
 Bachelor of Electrical Engineering,  
     99-100, 102  
 Bachelor of Laws, 93-94  
 Bachelor of Mechanical Engineering,  
     97-100, 103  
 Bachelor of Science, 62-64, 65-67  
     In Education, 99-100, 104  
     In Home Economics, 115-16, 117-18  
     In Pharmacy, 118-12  
     In Physical Education for Men,  
         115-16, 118  
     In Physical Education for Women,  
         115-16, 119  
     In Social Administration (See  
         special listing)  
 Combined Bachelor of Arts and  
     Bachelor of Laws, 65  
 Combined Bachelor of Arts and Doc-  
     tor of Medicine, 64-65  
 Combined Bachelor of Laws and  
     Bachelor of Science in Engineering,  
     99, 105  
 Doctor of Education, 124-25  
 Doctor of Historical Science, 94-95  
 Doctor of Medicine, 84-85  
 Doctor of Philosophy, 74  
 Juris Doctor, 93-94  
 Master of Arts, 67-70  
     In Education, 119-21  
     In Government, 129-35  
     In Public Personnel Administra-  
         tion, 135-36  
 Master of Laws, 94-95  
 Master of Science, 67-70  
 Dermatology, courses in, 173  
 Dissertation, 40  
 Divisional organizations, 40-41  
 Distribution, term of, 39  
 Dormitories, 41-42  
 Economics, courses in, 174-78  
 Education:  
     Courses in, 179-84  
     Degree:  
         Bachelor of Arts, 115-17

- Education—Continued  
   Degrees—Continued  
     Bachelor of Science, 115-15, 117-19  
     Doctor of Education, 121-23  
     Master of Education, 119-21  
     School of, 113-23  
   Educational facilities of the University, 7-9  
   Electrical Engineering:  
     Bachelor's degree in, 99-100, 1-2  
     Communication, option in, 1-2  
     Courses in, 185-87  
     Power, option in, 1-2  
     Embryology, courses in, 149, 279  
   Emeritus professor, xxvi-xxvii  
   Employment, student, 42  
   Endowment of the University, 6  
   Engineering:  
     Courses in, 169-71, 185-87, 213-15  
     Degrees:  
       Bachelor of Civil Engineering, 99-101  
       Bachelor of Electrical Engineering, 99-100, 1-2  
       Bachelor of Mechanical Engineering, 99-100, 1-3  
       Bachelor of Science in Engineering, 99-100, 1-4  
       School of, 97-1-5  
     English courses in, 188-92  
     Entrance requirements, 12-17  
     Examinations, 39  
       College Board, 11  
       For waiting curriculum requirements, 54-55, 94, 129  
       SEE UNDER Courses and Schools  
     Experimental Medicine, courses in, 153-54  
     Extension, Division of, 139  
   Faculty:  
     Alphabetical list, xxvi-xlvi  
     Standing committees, xxiv-xxv  
   Fee, "University", 21  
   Fees, 20-21  
   Fellowship in the Graduate Council, 73-74  
   Fellowships, 24  
   Financial Regulations, 20-23  
   Foreign Commerce curriculum, 133  
   Foreign-language requirements, 54  
   Foreign Service curriculum, 132  
   Fraternities, 298  
   French, courses in, 256-58  
   Geology, courses in, 193  
   German, Latin, and Literature courses in, 194-95  
   Geography:  
     Degrees:  
       Bachelor of Arts, 128-29, 131-35  
       Master of Arts, 129-35  
       Master of Arts in Public Personnel Administration, 135-36  
       School of, 125-36  
     Grades, 35-36, 82, 92  
     Grading system, 35-36  
     Graduate Council, 71-75  
     Graduation requirements, 38-39  
     Greek, course in, 172  
     Gynecology, courses in, 222-23  
   Health Administration, Department of, 196  
   Histology, courses in, 149, 279  
   History:  
     Courses in, 197-99  
     Of the University, 3-5  
   Home Economics:  
     Bachelor of Science degree of, in, 115-18  
     Courses in, 200-202  
   Honor roll, 51  
   Honor societies, 206-07  
   Honors, 39-40, 55, 85, 94  
   Hospitalization, 100  
   Hygiene, courses in, 154  
   Independent study plan, 62, 128  
   Indo-European languages, courses in, 1-5  
   Inter American Center, 141-42  
   Internships, 84  
   Journalism, courses in, 203  
   Junior Certificate, 50-55  
   Junior College, 45-55  
   Juridical Science, the degree of Doctor of, 94-95  
   Juris Doctor, degree of, 93-94  
   Laboratory fees and deposits, 20  
     SEE ALSO Courses of Instruction  
   Languages and Literatures, Division of, 61  
   Latin, courses in, 172  
   Law:  
     Courses in, 204-9  
     Degrees:  
       Bachelor of Laws, 93-94  
       Doctor of Juridical Science, 94-95  
       Juris Doctor, 93-94

- Law—Continued  
 Degrees—Continued  
 Master of Laws, 94-95  
*Revised, 89-90*  
 School, 87-95  
 Library, 8-9  
 Hours, 4-  
 Law, 40, 89  
 Medical, 40, 89  
 Regulation, 4-  
 Living accommodations, 41-42  
 Loan funds, 34  
 Location  
 Of the School of Medicine, 7, 91  
 Of the University, 6  
 Mathematics and Physical Sciences, Division of, 61  
 Mathematics, courses in, 216-12  
 Mechanical Engineering:  
 Bachelor's degrees in, 99-100, 103  
 Courses in, 213-15  
 Medical privileges, 196  
 Medical School Building, 79  
 Medicine:  
 Courses in, 216-18  
 Doctor of Medicine, degree of, 84-85  
 School of, 77-85  
 Military Science and Tactics, courses in, 219  
 Most Court of Appeals, 91  
 Musical Organizations, 299  
 Natural Sciences, Division of, 61  
 Naval Architecture, courses in, 213-15  
 Navigation, courses in, 22-24  
 Numbering of courses of instruction, explanation of, 147  
 Obstetrics, courses in, 222-23  
 Optics, in physics, courses in, 224  
 Optometry, course in, 278  
 Osteopathy, in medicine, courses in, 225  
 Pathology, courses in, 224  
 Pediatrics, courses in, 227-28  
 Pharmacology, course in, 229  
 Philosophy:  
 Bachelor of Science, degree in, in, 118-12  
 Courses in, 230-32  
 School of, 117-12  
 Philosophy:  
 Course in, 233  
 Doctor of Philosophy, degree of, 74  
 Physical Education:  
 Bachelor of Science, degree of, in, 115-17, 118-19  
 Courses in:  
 For men, 244-37  
 For women, 238-41  
 Physical examinations, 38  
 Requirements, 38  
 Physical therapy, in, 242-45  
 Physiology, courses in, 240  
 Placement Office, 42  
 Physical Science, courses in, 247-49  
 Proficiency, courses in, 288  
 Preventive Medicine, courses in, 154  
 Purses, 28-34  
 Publications:  
 See Scholarships  
 Property responsibility for, 42  
 Psychiatry, courses in, 248  
 Psychology, courses in, 251-55  
 Public Accounting, courses in, 135  
 Public Administration, curriculum, 133  
 Public Affairs, courses in, 132  
 Public Finance, courses in, 135  
 Public Personnel Administration, in, 132  
 Degree of Master of Arts, 135-36  
 Public Speaking, courses in, 136  
 Publications, student, 299  
 Quinquennial index, 30  
 Records management, 37  
 Registration, 19  
 Regulations, 33-40  
 See Also: Junior Colleges, Schools, and Divisions  
 Records management, 298  
 Residence, 33, 41-42  
 Residence requirements, 38-40, 41-42, 93-94  
 Romance Languages and Literatures, courses in, 256-60  
 Rates of the University (right to charge), 40  
 Science, courses in, 195  
 Scholarships, 35-39  
 See Also: Junior Colleges, Schools, and Divisions  
 Scholarships, 24-28  
 Scholarship applications, 30-32  
 Secondary Administration, degree of Bachelor of Science in, See second listing  
 Scientific Studies:  
 Courses in, 243-45  
 Junior Certificate in, 53



- Social Sciences, Division of, 61  
 Sociology, courses in, 264-65  
 Sociology, 278  
 Speech, courses in, 259-61  
 Speech, courses in, 266-68  
 Staff of Instruction, alphabetical list, xvii-ii  
 Statistics, courses in, 269-73  
 Student:  
     Activities, 298-99  
     Bar Association, 93  
     Employment, 42  
     Organizations, 42, 298-99  
     Publications, 299  
 Summer Sessions, 143  
 Surgery, courses in, 274-76  
 Surveying, courses in, 169, 170, 171  
 Syphilology, courses in, 173  
 Therapeutics, courses in, 229  
 Thesis, requirements for, 39  
 Trustees:  
     Board of, xvii-xviii  
     Committee of the Board of, xviii  
     University fee, 21  
 "University Students", Division, 137-38  
 Urology, courses in, 277  
 Vocational studies, Junior Certificate in, 48, 53  
 "Warnings", 51  
 Withdrawal, 36-37  
 Zoology, courses in, 278-79

THE UNIVERSITY RECORD

1942-43



CONFERRED

## JUNIOR CERTIFICATE

JUN 3 1942

(309)



Park, Helen Dorothy	Fla.	Steinberg, Alvin J.
Parrish, Alvin Edward	D.C.	Steinberg, Jack Norman
(With honors)		Stell, William Marlin
Perkin, Donald Keith	Colo.	Stockton, Milton A.
Phillips, Matthew Raymond	D.C.	Sullivan, Eunice
Plummer, Marjorie T.	D.C.	Sullivan, Fred Gunther
Powell, Louise Conkey	D.C.	Taylor, Marjorie G.
Quintrell, John Erskine	Md.	(With honors)
Ralph, Marie-Louise	D.C.	Teeter, Dulcie Genevieve
(With honors)		Thomson, Harold Ordell
Ramo, Arthur	N.J.	Thomson, Jane Burroughs
Raum, Elliott Marvin	D.C.	Tietz, William Edward
Rees, Elias Davis	D.C.	Towey, Stanley Catherine
Rees, Paul Taylor	Ind.	Trace, Helen Elizabeth
Reisnnyder, Charles Frank	Pa.	(With honors)
Rein, Milton	N.Y.	Tranor, Francis James
Rhine, Mary Elizabeth	Pa.	Tucker, Louise
Rice, David Lucian	Va.	Vance, Hurrell Taylor, Jr.
Rice, Theron Jennings	D.C.	Vass, George Oakley, Jr.
Roberts, Richard Mansfield	Va.	Waldron, Alice Frances
Romanoff, Melvin	N.Y.	Wallace, Charles Earl
Rose, Jerome Victor	D.C.	Waters, Dorothy Genevieve
Rubey, Susie-Lee	Md.	(With honors)
Sandusky, Bernard Mortimer	N.Y.	Weaver, Carolyn Cox
Schutz, Muriel Maxine	D.C.	Webb, Georgia Helen
Schneeman, Robert Lee	D.C.	Werbow, Stanley
Shanahan, Eileen Janet	Md.	Whitaker, Buford B.
Shulman, Solwey	D.C.	White, Nancy Ann
(With honors)		Williams, Sarah Jane
Simons, Barbara Alice	Md.	Wilson, Patricia Olesby
Smith, Merle J.	Pa.	Wise, Matthew Montgomery
Solomon, Edwin Morton	D.C.	Woolard, Lulu Freer
Somers, Elizabeth Rose	D.C.	(With honors)
Sparks, Phyllis Jean	D.C.	Woolley, Donald Eugene
Stambler, Arthur	D.C.	Zischerman, Harry William
Stein, Ralph	D.C.	

## FEBRUARY 22, 1943

Adamson, Keith Earl	Kans.	Gee, George Leonard, Jr.
Alterman, Seymour Lewis	N.Y.	Gibbs, R. Earl DeArmond
(With honors)		Gilmer, Thomas
Ames, Ruth Barbara	Md.	Graham, James W.
Ashby, Wallace Little	D.C.	Groszinger, Robert Paul
Ashford, Anita Appleby	D.C.	Hamblin, Barbara
Baker, Virginia	D.C.	Hendle, Raymond August
Banks, Helen Leona	D.C.	Hess, Robert Campbell, Jr.
Bishop, George Edward	Mass.	Higbee, Wilbur Enoch
Boyd, William Dunbar	D.C.	Holmes, Robert Reynolds
Bradley, John Curtis	D.C.	Horwitz, Harold
Cammisa, Guido Frank	Conn.	Jervay, John Page
Canaris, Nicholas Mathew	D.C.	Johnson, William H.
Chew, Geoffrey Foucar	D.C.	Karst, Beatrice June
(With honors)		Kipp, Morris Rex
Chicovsky, Roslyn	D.C.	Krug, Lee Paul
(With honors)		Kusack, Raymond Eugene
Coffey, Loessa Taylor	D.C.	Landy, John James
Cowen, Catherine Young	Md.	Larock, Ellen Florence
Cox, Sydney	Maine	Littman, Richard Austin
Danly, Dorothy Jean	D.C.	Loggins, James Elwyn, Jr.
DeVecchio, Jane Katherine	D.C.	Lyons, David Robert
Davis, Martha Maud Iowan	Va.	Manon, Ralph Wendell
Demetrius, Francis Robert	D.C.	Marans, Nelson Samuel
Dowdy, Samuel Eugene	Mo.	Marks, Lester
Edles, Samuel Davis	Utah	Mattingly, Robert Andrew, Jr.
Eisenberg, Melvin	D.C.	McAvoy, William Bernard
Farnham, Diana R.	Calif.	McDuffie, Eleanor Ann
Field, Constance Robison	Kans.	McNeil, Ann Rosalie
Finletter, Margot Damrosch	D.C.	Mead, Charles Alexander, Jr.
Fowler, DeLora Leone	D.C.	Michels, Franklin Peter
Frazier, Donald Benjamin	D.C.	Millenson, Roy Handen
Friedman, Gertrude	D.C.	Naeff, Ruth Virginia

# Degrees Conferred

311

Newhouse, Stanley Raum	D.C.	Sternfeld, William A.	N.Y.
Nierenberg, Leonard D.	Pa.	Stokes, K. Celeste	D.C.
Norton, Margaret Bell	D.C.	Stratton, Lawrence	N.Y.
Noss, Oscar Fritz, Jr.	N.J.	Stuart, Claudia Rhett	D.C.
Parrish, Evelyn May	Md.	Surba, Chester F.	N.Y.
(With honors)		Sures, Charles Stanley	D.C.
Perkins, John Walter	D.C.	Sweet, Timothy	Okla.
Pitt, Helen	N.Y.	Szold-Kiersek, Roland Stephen	Va.
Powers, Patricia	Okla.	Thomas, George Stanley	Pa.
Presser, Warren G.	D.C.	Tutwiler, Frank Bryan	Md.
Putnam, Paul Louis	Ariz.	Twigg, Theodore Kendall	D.C.
Ramos, Shirley	Calif.	Valentine, Alberta Enderle	D.C.
Rausch, Johnny Louis	Ind.	Venezky, Alice Sylvia	D.C.
Rice, Van, Elmer, Jr.	D.C.	(With honors)	
Rowland, William Edwin	D.C.	Vidalis, John Evans	N.Y.
Schuler, Otto Gerhard J.	N.Y.	Vietor, Hendrik Willem	D.C.
Schneider, Harry	N.Y.	Wagner, Isidore	N.Y.
Schneider, Bertram Alexander	D.C.	Williamson, Monroe Walter	Ark.
Seban, Donald Reck	Pa.	Wine, Sarah	D.C.
Skinner, Jean Katharine	D.C.	Wofford, Martha Johnston	D.C.
Smith, Arthur Jay	Ill.	Yager, Ruth Jean	Va.
Spero, Abraham	D.C.		

## COLUMBIAN COLLEGE

### BACHELOR OF ARTS

JUNE 3, 1942

Balch, Moulton Hardy	Maine	Hastress, Sarah Elizabeth	D.C.
Badwin, Charles Franklin, Jr.	Mich.	Haskett, Jane Flegg	Calif.
Becker, Bernard S.	N.Y.	Hershey, Kathryn Elizabeth	D.C.
Berry, Elaine	Ill.	Hertz, Florence	N.Y.
Bingham, Marvin W.	Utah	Holston, Benjamin Milton	W.Va.
Blackstone, Anne Woodall	Md.	Hopper, Natalie Jane	D.C.
Bond, Vernon Franklin, Jr.	Va.	Howard, Bett, Lerner	D.C.
(With distinction)		Hudson, Mary Louise	Md.
Bowling, John William	Okla.	Kimble, Seruch Titus, Jr.	D.C.
Braune, Clinton Ellis	D.C.	Kindsvatter, Leo Richard	D.C.
Britt, John Francis Xavier	N.Y.	Kleh, Jack	Ore.
Butler, Hope Macmillan	Mich.	Kloak, Halsey Martin	D.C.
Cady, Phyllis Gurnsey	R.I.	Kraker, Joseph	Md.
Callan, Margaret Elizabeth	D.C.	Krook, Stephen W.	D.C.
Campbell, Elizabeth Janet	D.C.	Largess, Zoe McCombs	Pa.
Chavez, Lincoln Joseph	N.Mex.	(Special honors in English)	D.C.
Cherity, Joseph Anthony, Jr.	Calif.	Lewis, Martha Arminda	Ga.
Colbert, Florence Elizabeth	D.C.	Lifschutz, Seymour	N.I.
Cooklin, Doris Elliott	D.C.	Livingson, Lenore	N.Y.
Copeland, Margaret	D.C.	Lowe, Ruth Virginia	W.Va.
Crozier, Joseph Bruce	D.C.	Madden, Murdaugh Stuart	Va.
Cutler, Frank Earl	Ariz.	Matthews, Marjorie Collins	D.C.
Dalman, Carlos Schmidt	P.R.	(With distinction—special honors in Romance Languages)	
Detman, John Peter	Wash.	Mattice, William Arthur	Va.
Duckerman, Delight	N.Y.	McCart, Mary Ann	Md.
Dunlap, Celeste	Va.	McGee, John Irving	N.Y.
Dunbar, Frances Palmer	Fla.	McKee, Michael Peter	Tex.
Eaton, Roy Brandon, Jr.	Conn.	McNeil, George Elroy, Jr.	D.C.
Epstein, Joseph Bernard	Ky.	Merritt, Fannie Fern	Mo.
Evert, Maria Elizabeth	N.Y.	Morrison, Robert Stone	Md.
Foster, Elise Rosina	D.C.	(With distinction)	
Flaehler, Margaret Constance	D.C.	Moss, Virginia Bennett Moore	Ky.
Fusfield, Daniel Roland	D.C.	(With distinction)	
Gale, Joe Bob	D.C.	Naiman, Irma Rose	D.C.
Gilens, Ida, Sidney Sorrel	Okla.	Naisbitt, Harold Arthur	Utah
Green, Elizabeth Ann	N.J.	(With distinction)	
Green, Lois Elaine	D.C.	Nessell, William Edward	D.C.
Greenberg, Benjamin	N.J.	Norris, Kathleen	D.C.
Hamburger, Marnie Jay	Mass.	Oslin, Mary Jo	Okla.
Harris, Louise	N.Y.	Parrish, Floyd Donald	Ill.
(With distinction)	Okla.	Pavas, Jesse Andrew	D.C.

Pearson, Ellen Maki (With distinction—special honors in English)	Mass.	Shales, Eleanor Marie	Vt.
Phelan, Jerome J.	Mont.	Shively, Margaret Elizabeth	D.C.
Pittenger, Richard William	Minn.	Shively, Henry William	D.C.
Pomerantz, Jacob	N.Y.	Stevens, Betty Jane	N.Y.
Posner, Selma Sheftelman	N.Y.	Stichter, Nettie (With distinction)	D.C.
Price, Harriet Palmer	D.C.	Thacker, Edward Harvey	Ill.
Rea, Gloria	M.J.	Thomen, Harold Ordell	Wis.
Ritter, Anne May	N.Y.	Thompson, John I.	N.Y.
Rixey, Charles Osborn	D.C.	Tracy, Iune Amelia	N.Y.
Rose, Charles Jules	W.Va.	Turrou, Edward Arnold	Ill.
Roszbacher, Agnes Huntington	N.J.	Velkoff, Cyril I.	Ill.
Saegmuller, Virginia Rose	Va.	Weers, Barbara Lee	Mo.
Sartwell, Mary Katherine Laurence	D.C.	Wilkins, Marjorie Vesta (With distinction—special honors in Romance Languages)	Calif.
Scariano, Anthony	Ill.	Wilson, Thomas Ashton	N.Y.
Schmitt, Barbara Ann	Md.	Young, Priscilla Dana (With distinction—special honors in English)	D.C.
Schoonover, Tedford Eugene	Iowa	Zeller, William Webb (With distinction)	D.C.
Schumacher, Jane	Nebr.	Zepel, Paula	D.C.
Seaton, Martha Corinne	D.C.		
Shavell, Lillian Kolbey (With distinction—special honors in Romance Languages)	D.C.		

## FEBRUARY 22, 1943

Baehr, Betty Bischoff	Vt.	McFeaters, Marvin Clyde	Calif.
Bean, Anna (With distinction)	D.C.	Meigs, Olive Margaret	Calif.
Beard, Ward Powers, Jr.	Va.	Miller, Mary Elinor	D.C.
Carter, John Paul	D.C.	Moll, Isola Angela	N.Y.
Cavey, Margaret	D.C.	Moore, Margaret Fansler	Sp.
Cohen, Irving K.	N.Y.	Muilenburg, Robert A.	D.C.
Cohen, Leon	N.Y.	Olshaker, Bennett	Va.
Conrad, William E.	Calif.	Owens, Jacqueline Shirley	D.C.
Cooper, Irving S.	D.C.	Powell, Louise H. Conkey	D.C.
Courtney, Ralph L.	D.C.	Quintrell, John Erskine, Jr.	D.C.
Cronhill, Lure Delight	Md.	Reasin, Henry Cole	Ill.
Davis, Margaret Margaretite (With distinction)	Ind.	Robey, Edgar Alderson	D.C.
Dix, James J.	Ill.	Salkind, Milton	Tex.
Edwards, Benjamin Franklin II	D.C.	Sarratt, Claude Henry	D.C.
Eldridge, Eugene R.	N.Y.	Seale, John Arthur	N.Y.
Fishbein, Gershon William	D.C.	Shapiro, Annette D.	Ill.
Fishe, Stephen S.	N.Y.	Shor, Max	Va.
Fitzpatrick, John Raymond	D.C.	Simmons, Margaret Helen	D.C.
Foscue, Mary Cruse	Ala.	Slattery, L. B. Bernard	D.C.
Gardner, Jessie Rose (With distinction)	Okla.	Sload, Alonzo Beebe	D.C.
Geiger, Jason	D.C.	Smith, Wilbur	N.Y.
Goldwasser, Elizabeth W.	N.Y.	Stone, Thomas Edward	N.Y.
Haggerty, Joseph A.	Conn.	Stratton, Lawrence	La.
Haughey, John Paul	Mass.	Targowsky, William	N.Y.
Hayward, J. Paul	Maine	Taylor, Ellen, Sylvia M.	Calif.
Heitman, Wallace	Tex.	Tesoriero, Salvatore John (With distinction)	D.C.
Howard, Robert Thomas	D.C.	Vasa, Vladimir	Tenn.
Innes, Moss Lee	Md.	Wankan, Fred Eatherly, Jr.	D.C.
Kalter, Miriam	D.C.	Willard, Harriet Weber	D.C.
Keating, Mary Dolores	D.C.	Wright, Margaret Elizabeth	D.C.
Leibovitz, Arthur M.	Ill.	Wright, Margaret Frances	D.C.
Linebarger, Wayne Wentworth	D.C.	Wright, Mary Clonard	D.C.
Luginbuhl, Kathryn Louise	Ill.	Zimmerman, Lorenz Eugene (With distinction)	D.C.

## BACHELOR OF SCIENCE

JUNE 3, 1942

Bernstein, Bernard	N.Y.	Harness, Charles Leonard	Ill.
Black, Emilie Annabelle	D.C.	Hewlett, John Pierce, Jr.	Ill.
Brasted, Donald More	Va.	Jussila, Lillian Irene	Ill.
Dembrow, Daniel W.	Md.	Karlson, Walter	Ill.
Hamburg, Fredric Charles	Pa.	Newton, Walter Lloyd	Ill.



# Degrees Conferred

313

Sures, Allan Herbert	D.C.	Williams, Charles John	Mass.
AB 1941, The George Washington University		Wash. (District of Columbia)	
Tass, Gordon Jordan	Mass.	Wash. Univ. William	Pa.
		Zelins, Harry	N.Y.

## FEBRUARY 22, 1943

Alpher, Ralph Adler	D.C.	Hartman, William T.	Mass.
B.S. 1941, The George Washington University		Mason, John	D.C.
Brenner, Howard Andrew	N.Y.	Phelps, James Kenneth	Mass.
B.S. 1941, Iowa State College		Wash. (District of Columbia)	
Fewer, William Harold	D.C.	Sch. R. 1941, N.Y.	N.Y.
Fuchs, Sidney J.	D.C.	Sch. R. 1941, N.Y.	D.C.
Greene, Edward A. Jr.	N.Y.	Sch. R. 1941, N.Y.	Wash.
Grossman, William Bart	Mass.	Sch. R. 1941, N.Y.	Mass.
Hannestad, Louis	D.C.	Sch. R. 1941, N.Y.	Ark.
		Wash. Univ. William	
		Wash. Univ. William	

## MASTER OF ARTS

### JUNE 3, 1942

Blackburn, Mary Janet Hamilton	D.C.	Miller, Harold	Calif.
AB 1941, The George Washington University		B.S. 1941, College of the City of New York	
Dolan, Virginia Frances	Mass.	Perry, John Melvin	N.Y.
AB 1941, The George Washington University		AB 1941, The George Washington University	
Elliott, William Victor	N.Y.	Phelps, James Kenneth	N.Y.
AB 1941, The George Washington University		B.S. 1941, M.S. 1940, College of the City of New York	
Gilbert, Norman Eugene	N.Y.	Rosen, Francis Leon	Mass.
AB 1941, New York University		AB 1941, Columbia University	
Hartman, William T.	D.C.	Rosen, Francis Leon	D.C.
AB 1941, The George Washington University		AB 1941, The George Washington University	
Hartman, William T.	N.C.	Sch. R. 1941, N.Y.	
AB 1941, The George Washington University		Sch. R. 1941, N.Y.	
Lester, James Christian	N.Y.	Wash. Univ. William	Calif.
AB 1941, The George Washington University		B.S. 1941, University of South	
McGee, John Lee	D.C.	Y. 1941, The George Washington University	Wash.
AB 1941, The George Washington University		B.S. 1941, The George Washington University	
Morgan, John Nathan	D.C.		
AB 1941, The George Washington University			

## FEBRUARY 22, 1943

Bell, Harold P.	Pa.	Nelson, John Kelly	Va.
AB 1941, The George Washington University		B.S. 1941, The George Washington University	
Fraser, John Albert	D.C.	Shaw, Robert Wesley	Mass.
B.S. 1941, The George Washington University		AB 1941, The George Washington University	
Lewis, John	D.C.	Shaw, Robert Wesley	Va.
AB 1941, The George Washington University		AB 1941, The George Washington University	
Morgan, John Nathan	Mass.		
AB 1941, The George Washington University			

## MASTER OF SCIENCE

### JUNE 3, 1942

Engle, Henry Bar.	Pa.	Leahy, John Eastman	Va.
B.S. 1941, Pennsylvania State College		B.S. 1941, The George Washington University	
Gard, Vincent	D.C.		
MD 1941, AB 1941, The George Washington University			



FEBRUARY 22, 1943

Harris, Kenton L. B.S. 1935, University of California	Calif.	Kushman, Leaton John B.S. 1940, The George Washington University	D.C.
Harris, Thomas Hilliard, Jr. B.S. 1937, The George Washington University	Miss.		

## THE GRADUATE COUNCIL

## DOCTOR OF PHILOSOPHY

JUNE 3, 1942

Dickson, Masey Robson A.B. 1925, Wofford College A.M. 1931, University of North Carolina Thesis: "The War Comes To All: The Story of the United States Food Administration as a Propaganda Agency"	S.C.	Telford, Ira Rockwood A.B. 1931, A.M. 1933, University of Utah Thesis: "An Histological and Functional Study of Striated Muscle in Vitamin E Deficient Rats"	Calif.
Meyer, Charles Frederick B.S. 1915, Pennsylvania State College A.M. 1917, The George Washington University Thesis: "The Theory of the Motion and Capture of Free Electrons in Crystal Dielectric Media"	Mich.		

FEBRUARY 22, 1943

Hirschberger, Ray L. A.B. 1928, Bridgewater College M.S. 1931, Virginia Polytechnic Institute A.M. 1933, University of Illinois Thesis: "On the Analysis of a Certain Six by Six-Four Group Lattice Design"	Va.	Younger, Edward Eugene A.B. 1933, Arkansas Teachers College A.M. 1938, Oklahoma Agricultural and Mechanical College Thesis: "The Early Diplomatic Career of John A. Kossuth"	D.C.
Hill, Alan Gibson A.B. 1935, Miami University A.M. 1937, Cornell University Thesis: "Thomas Heywood's 'The Rape of Lucrece'"	Iud.		

## THE SCHOOL OF MEDICINE

## DOCTOR OF MEDICINE

JUNE 3, 1942

Agge, Fred Benson, Jr. A.B. 1919, The George Washington University	D.C.	Chesman, Arthur B.S. 1938, Wayne University	Pa.
Alder, Manning Wallace A.B. 1929, The George Washington University	Md.	Collins, Mary Ellen Derrick, William Sheldon A.B. 1940, The George Washington University	Calif. D.C.
Anderson, Gilbert Irenius A.B. 1926, The George Washington University	Iowa	Dunham, Jean Lavell Elliott, John Palmer A.B. 1938, University of North Carolina	D.C. N.C.
Beall, John Arthur A.B. 1938, Ohio Wesleyan University	Ohio		Penn.
Burleson, Paul Woodrow B.S. 1938, Birmingham Southern College	Ala.	Fabrega, Ignacio B.S. 1935, La Salle College	D.C.
Chastin, Horace (With distinction) A.B. 1938, University of Michigan	N.Y.	Footer, Marvin Peace A.B. 1938, The George Washington University	

# Degrees Conferred

315

Frankel, Theodore H A.B. 1938, The George Washington University	N.I.	Matosky, A. Burton A.B. 1938, The George Washington University	D.C.
Gilliland, Norman Ambrose A.B. 1939, The George Washington University	Va.	Merritt, Lynn Ideus B.S. 1938, University of Washington	Wash.
Gormas, Marius Peter A.B. 1938, The George Washington University	D.C.	Oberholser, John Teaford B.S. 1937, Rollins College	Va.
Greenberg, Arnold Sidney Hamm, Joseph Nicholas B.S. 1942, Creighton University	D.C.	Parke, Samuel Lester, Jr. A.B. 1938, University of North Carolina	N.C.
Hartmill, Charles H. B.S. 1938, Wake Forest College	S.D.	R. Burton, Duncan A.B. 1938, Stanford University	Alaska
Hornisher, Charles John Jarboe, Louise B.S. 1937, The George Washington University	N.C.	R. Burton, William Wesley A.B. 1938, University of Rochester	N.Y.
Kardas, Frederick Joseph Katz, Robert William B.S. 1938, Wake Forest College	Conn.	R. Burton, Gustav Marion, Jr. B.S. 1938, Howard College	Ky.
Kirsch, Morris Edward B.S. 1937, The George Washington University	N.C.	Schmitt, Carl Augustus B.S. 1938, The George Washington University	D.C.
Kurtz, Harold James A.B. 1938, The George Washington University	D.C.	Shelton, Felix Abraham Tanner, Karel A.B. 1938, The George Washington University	D.C.
Leftwich, William Burdette B.S. 1938, Hampden Sydney College	W.Va.	Torrey, Frank Anthony Wright, Henry George A.B. 1939, The George Washington University	N.Y.
Madhavan, Ardi Luni Raju A.B. 1939, The George Washington University	W.Va.	Ward, Charles James, Jr. A.B. 1937, Stanford University	D.C.
Merrick, John Blake (With distinction) A.B. 1938, Colgate University	Va.	Werner, Herman Robert B.S. 1938, College of William and Mary	Calif.
Michael, Morris Irwin (With distinction) A.B. 1938, Cornell University	Va.	Wright, Charles Stanley, Jr. B.S. 1937, Harvard University	N.J.
	D.C.		D.C.

## FEBRUARY 22, 1943

Adams, Ralston Heberling Anack, Lester, Eugene Annerman, Harvey H. B.S. 1937, The George Washington University	MD W.Va. Conn.	Dick, The Clara Peck (With distinction) B.S. 1937, University of Washington	D.C.
Barton, William Karl B.S. 1939, Boston University	Fla.	McNair, Mervyn State College Dennis, Andrew Paul, Jr. A.B. 1937, The George Washington University	Pa.
Bates, Harry Clark, Jr. B.S. 1939, University of Virginia	Va.	Dick, A. Alex Barnes B.S. 1937, University of North Carolina	N.C.
Barley, Benjamin, Harold B.S. 1941, University of Washington	Wash.	Dick, Louis Paul (With distinction) B.S. 1941, University of Pittsburgh	Pa.
Blundin, Kenneth Edwin Barn, Bruce Howard, Jr. A.B. 1941, The George Washington University	D.C.	Dorman, M. J. (With distinction) A.B. 1939, New York University	N.Y.
Brown, Alfred Bernard Burpee, Carl Lee James B.S. 1938, College of William and Mary	D.C.	Doug, Samuel B.S. 1936, Wheat Teachers College	D.C.
MS. 1939, University of Maryland	N.Y.	Eastman, Edwin Madison, Jr. Edwards, Benjamin Franklin II (With distinction)	Va.
Bassner, Alexander A.B. 1940, Morrisville College	Iowa	Edwards, John Albert A.B. 1940, The George Washington University	D.C.
BM. 1941, University of South Dakota		Etter, Richard Lee B.S. 1935, The Citadel	Vt.
Cole, Robert Newton B.S. 1939, Dickinson College	D.	A.B. 1937, University of Houston	Tex.
Conrad, Robert Waite Crane, Mary Opheia (With distinction) A.B. 1939, University of Mississippi	Mo. Miss.	Fairchild, John Phillip A.B. 1940, The George Washington University	D.C.

Fischer, Richard Henry B.S. 1939, The George Washington University	D.C.	Perkins, William Rbert, Jr. (With distinction) A.B. 1939, Princeton University	D.C.
Franzoni, Joseph Dunbar III B.S. 1938, University of Maryland	D.C.	Petersen, Roy A. B.S. 1936, Utah State Agricultural College	N.Y.
Goldstein, Herbert Harold (With distinction) A.B. 1939, University of Michigan	N.J.	Place, Charles Hyatt, Jr. A.B. 1939, Colgate University	N.Y.
Hardy, William Headwicks B.S. 1939, University of Washington	Wash.	Rosen, Boris (With distinction) A.B. 1939, New York University	N.J.
Hoberman, Joel Bernard A.B. 1940, The George Washington University	Mass.	Reitman, James S. B.S. 1938, New York University	N.J.
Hollander, Milton Henry A.B. 1939, New York University	N.J.	Reynolds, Robert (With distinction) B.S. 1939, Yale University	N.Y.
Hoyle, John Decatur B.S. 1939, University of North Carolina	N.C.	Rothfus, Helen Tefft A.B. 1939, University of Rochester	N.J.
Jackson, Elvan Gee A.B. 1939, Brigham Young University	Utah	Rovinski, Helen Therese A.B. 1939, College of St. Elizabeth	N.J.
James, Carlos Federico A.B. 1939, University of South Dakota	P.R. S.D.	Siegel, Leo Harold (With distinction) A.B. 1941, The George Washington University	D.C. Utah
Jurney, Louis Marion B.S. 1939, University of Mississippi	Miss.	Smith, Burton G. B.S. 1939, University of Idaho	Pa.
Kersten, Stanley William A.B. 1939, The George Washington University	D.C.	Stanley, Robert Godlewski A.B. 1939, University of Pennsylvania	N.Y.
Leach, James William M.A. 1939, University of Toledo	Ind.	Steele, Daniel Joseph (With distinction) A.B. 1939, Johns Hopkins University	China
MacDonald, Sally Strick A.B. 1939, The George Washington University	D.C.	See, Kenneth Chia-che A.B. 1941, The George Washington University	N.J.
Maxwell, James Thurston A.B. 1939, Stanford University	Calif.	Thomas, Herrick Melvin A.B. 1940, The George Washington University	Ala.
Martin, Herbert Leonard, Jr. B.S. 1939, Georgetown University	D.C.	Thompson, William Davis B.S. 1939, Alabama Polytechnic Institute	D.C.
McCauley, Richard William B.S. 1939, University of Missouri	Mo.	Tievsky, George B.S. in Pharmacy 1940, The George Washington University	W.Va.
McNair, Herbert Fane, Jr. M.A. 1939, University of Wyoming	W.Va. D.C.	Vesper, George E. B.S. 1939, Bethany College B.S. 1941, West Virginia University	D.C.
Miller, W. Harvey, Jr. A.B. 1937, Brigham Young University	Utah	Weitzen, Edwin Hyman A.B. 1941, The George Washington University	D.C.
Nelson, Walter Charles, Jr. Ph.D. 1938, B.S. 1939, The George Washington University	W.Va.		
O'Brien, Henry Edmund, Jr. A.B. 1937, New Jersey State Teachers College	D.C. N.J.		

## THE LAW SCHOOL

## BACHELOR OF LAWS

JUNE 3, 1942

Andresen, Arden Leedy Awtrey, L. Ray B.S. 1933, A.M. 1938, University of Oklahoma	D.C. Okla.	Bell, Frederick C. A.B. 1937, Michigan State College	Mich.
Beath, Paul Robert A.B. 1938, University of Illinois A.M. 1939, University of Wisconsin	Nebr.	Brown, Winfield DeWitt A.B. 1933, A.M. 1935, The George Washington University	Utah
Behn, Eric Reinhold B.S. in E.E. 1933, Cooper Union M.E.E. 1937, Polytechnic Institute of Brooklyn	N.Y.	Benson, Richard Young A.B. 1938, University of Utah	Va.
		Bowman, Charlotte Josephine A.B. 1940, The George Washington University	



## 317

Bradford, Harold Keith	Minn.	McClare, John Kenneth	N.Y.
A.B. 1928, West Virginia University		A.B. 1928, Yale University	
Carrig, Harry Lee	Va.	McDonald, Richard Otto	Nebr.
Carrig, Lee Augustine	D.C.	Minish, Alfred William	Ky.
B.S. in M.E. 1934, Massachusetts Institute of Technology		A.B. 1938, Georgetown College	Md.
Cass, Geo. Margaret	Mass.	Norton, Elmer James	
A.B. 1939, Rutgers College		B.S. in Ch.E. 1937, University of Michigan	D.
Chapman, Philip Frederick	Maine	Norton, Leland Dean	
A.B. 1935, Bowdoin College		A.B. 1930, The George Washington University	Md.
Christy, Kenneth C.	Ariz.	Obach, Ethel	
A.B. 1935, Arizona State College		A.B. 1924, Drury College	
Dolan, Thomas H. Stuart	Neb.	B.E. 1925, A.M. 1926, University of Chicago	
A.B. 1935, Nebraska Wesleyan University		Phelps, William Jeter	Va.
Donat, Anthony Franklin	Ill.	B.S. in B.A. 1936, University of Richmond	
A.B. 1938, Illinois College		Price, Eber Raymond	Va.
Dorsett, Harold Lee	Wyo.	A.B. 1933, Ohio University	D.C.
Forshaw, Robert Edward	Ohio	Kernek, Louis	
B.S. 1937, Mount Union College		B.S. in M.E. 1937, The George Washington University	Md.
Gates, Phyllis Ann	Calif.	Koonce, Miriam Theresa	
B.S. 1938, Florida State College for Women		A.B. 1930, A.M. 1932, Ph.D. 1934, The Catholic University of America	S.D.
Gibson, Myer	N.Y.	Schugar, Emanuel	
Gordon, Stephen	D.C.	B.S. in M.E. 1934, Carnegie Institute of Technology	
Graham, Karel E.	Va.	Shanard, John M.	
B.S. in Eng. 1940, The George Washington University		A.B. 1935, University of South Dakota	N.C.
Hadley, William Hiram	Wash.	Snow, William Boylan, Jr.	
B.S. 1931, University of Washington		A.B. 1931, University of North Carolina	Tenn.
Hattinger, Dayton M.	Iowa	Splawn, John H.	
B.S. 1939, State University of Iowa		B.B.A. 1935, Texas College of Arts and Industries	S.D.
Hart, H. Harold Steele	Calif.	Steinbach, Clarence Paul	
Hertz, Paul L.	Idaho	A.B. 1930, University of Nebraska	N.C.
B.S. 1935, University of Utah		Thompson, Malcolm Hayes	Oreg.
Hill, H. H. B.	N.D.	B.Ed. 1937, Plymouth Normal School	
A.B. 1934, The George Washington University		Tiffany, Dewey E.	D.C.
Jack, Eugene	W.Va.	A.B. 1920, University of Minnesota	
A.B. 1938, Marshall College		Unsworth, Harry Kent	
Jerkins, Ray L.	Utah	A.B. 1933, American University	
A.B. 1935, Brigham Young University		Van Meter, LaRue	
Kel, Arthur William	Va.	A.B. 1923, Illinois Wesleyan University	
B.M.E. 1938, Ohio State University		A.M. 1927, University of Illinois	Tenn.
Leffler, Harold Howard	Va.	Vaught, John Marshall	
Levine, Harry M.	N.Y.	A.B. 1930, Washington and Lee University	
B.B.A. 1935, College of the City of New York		Walker, Samuel Branch III	
Liberman, Herman	N.Y.	B.S. in Ch.E. 1935, M.S. 1937, University of Illinois	
B.S. 1935, M.S. 1936, College of the City of New York		Woodley, Frederick William, Jr.	
Low, Louis Arnold	N.Y.	Zitver, Leon	
B.S. 1931, College of the City of New York		B.S. in Eng. 1936, College of the City of New York	
AM 1935, The George Washington University			
Ph.D. 1941, Columbia University			
Martin, Mary Douglas	Ark.		
Martin, Paul Samuel	N.Y.		
B.S. in Eng. 1935, E.E. 1936, College of the City of New York			

FEBRUARY 22, 1943

FEBRUARY 22, 1943			
Amos, Felix	Pa.	Bouch, John Adrian	Minn.
B.S. 1914, University of Penn.		A.B. 1937, University of Minnesota	
Asia, H. A.	Wash.	Davis, Frank Elwood	D.C.
(Washington)		Dennis, Milton L.	Tex.
A.B. 1940, Radcliffe College		A.B. 1931, The George Washington University	
Ackew, Harry	Fla.	Golway, Everett Arthur	Va.
A.B. 1928, University of Florida		B.S. 1931, Boston University	



Goodson, Vivian Brandshaft  
A.B. 1934, Smith College  
Johnston, Wesley Amos  
Monk, Carl  
Murphy, Donald Vincent  
A.B. 1938, University of Iowa  
Nelson, Victor Pershing  
Schick, James Peter  
A.B. 1936, Lafayette College  
Sloan, Kenneth L. Hamilton  
Ph.B. 1933, University of Chicago  
Smith, Marilla Horton  
A.B. 1930, New York State College  
for Teachers

N.Y.

N.Y.

Okla

Iowa

Utah

N.Y.

Ill.

N.Y.

Thornton, Jack Bernard  
A.B. 1930, University of Washington  
Volker, Henry Wright  
B.S. 1937, University of Utah  
Wechsler, Nathan  
A.B. 1940, The George Washington  
University  
Zinn, Dean Surguy  
A.B. 1940, The George Washington  
University

Wash.

Utah

D.C.

N.Y.

N.Y.

N.Y.

## MASTER OF LAWS

JUNE 3, 1942

Becker, William Bain  
A.B., LL.B. 1938, Washington Uni-  
versity  
Bledsoe, Edwin Page, Jr.  
B.S. 1930, Washington and Lee  
University  
LL.B. 1930, The George Washing-  
ton University  
Brown, George Robbins  
A.B. 1938, LL.B. 1940, The George  
Washington University  
Callomon, Ernest M.  
D.L. 1930, University of Breslau  
LL.B. 1941, The George Washington  
University

Mo.

Va.

Ohio

D.C.

Greene, Lawrence J.  
A.B. 1911, LL.B. 1933, Columbia  
University  
Penstone, Giles Henry  
Ph.B. 1928, J.D. 1930, University  
of Chicago  
Warner, Marvin L.  
B.S. 1939, LL.B. 1941, University of  
Alabama  
Wood, James Nathan  
A.B. 1935, DePauw University  
LL.B. 1938, Indiana Law School

N.Y.

Ill.

Ala.

Ind.

Ind.

Ind.

FEBRUARY 22, 1943

Hatch, Robert Seymour  
A.B. 1929, Ohio University  
LL.B. 1931, Ohio State University

Ohio

Reynolds, Frank Miller, Jr.  
A.B., LL.B. 1939, University of Okla-  
homa

Okla.

## JURIS DOCTOR

JUNE 3, 1942

Bigler, James Campbell  
B.S. 1932, United States Naval  
Academy  
Brown, Alberta  
A.B., B.E. 1931, Baylor University  
Bullock, James Robert  
B.S. 1938, Utah State Agricultural  
College  
Buren, Peery Trenton  
B.S. 1930, University of Oregon  
Creighton, Helen Evelyn  
A.B. 1932, Waynesburg College  
A.M. 1936, University of Michigan  
Fetter, Theodore Albert  
B.S. 1920, M.S. 1931, Washington  
University  
Glassman, Lawrence  
B.S. 1928, M.S. 1929, Massachusetts  
Institute of Technology  
Goldberg, Joseph  
A.B. 1934, Brooklyn College

Ohio

Tex.

Colo.

Utah

Pa.

Mo.

Mass.

N.Y.

Graham, James Denholm, Jr.  
A.B. 1930, Carroll College  
Hays, Jack Newton, Jr.  
(With distinction)  
A.B. 1938, University of Tulsa  
Hecker, Edwin  
B.S. 1935, College of the City of  
New York  
Henry, George Robert  
A.B. 1940, The George Washington  
University  
Hill, Samuel Billingsley, Jr.  
A.B. 1937, Williams College  
Jessup, Warren Thomas  
B.S. in E.E. 1937, University of  
Southern California  
Jostrom, James LeRoy  
A.B. 1938, University of South  
Carolina  
Jones, Frederick Nelson  
B.S. 1928, Columbia University

Mont.

Okla.

N.Y.

Ind.

Ind.

Ind.

Ind.

Ind.

Ind.

Ind.

Ind.

Ind.

Ind.

Ind.

# Degrees Conferred

319

Jordan, Terral Augustus A.B. 1938, The George Washington University	Miss.	Rimel, Irvin Harold B.S. in Ch.E. 1934, University of Illinois	Ill.
Matson, Walter David A.B. 1931, University of Michigan	Md.	Rubess, George Jack B.S. in M.E. 1938, Lewis Institute	Ill.
Méndez Guardia, Manuel José A.B. 1939, The George Washington University	Panama	Sessans, Eleanor (With distinction)	Ala.
Myer, Victor B.S. 1937, University of California	D.C.	A.B. 1937, University of Alabama	Utah
Ozment, Oral Dee (With distinction)	Ark.	Sheffield, Robert J. A.B. 1934, University of Utah	Idaho
A.B. 1936, Henderson State Teachers College		Smay, Robert Elton A.B. 1938, College of Idaho	Pa.
Pizer, Marguerite Langdale A.B. 1931, Georgia State Woman's College	Ga.	Welt, Samuel Louis A.B. 1934, University of Pennsylvania	
		A.M. 1939, The George Washington University	

## FEBRUARY 22, 1943

Bernstein, Cyrus B.S. 1933, College of the City of New York	N.Y.	Dowd, Thomas Nathan (With distinction)	Iowa
Cooper, Denis Aron Baccalaureate 1926, Ministry of Education, Romania	D.C.	A.B. 1939, The George Washington University	Iowa
Licentă in Drept 1929, University King Carol I, Romania		Jones, Edward Hamilton A.B. 1939, University of Iowa	
Pol.Sc.Dr. 1935, University King Ferdinand I, Romania			

## THE SCHOOL OF PHARMACY

### BACHELOR OF SCIENCE IN PHARMACY

JUNE 3, 1942

Benson, Arvid Oswald	Ohio	Pearson, Elias Harrison	D.C.
Gibbs, George Alister	D.C.	Smith, Donald William	D.C.
Hall, Dwight Francis	D.C.	Tusing, Thomas William	D.C.
McDonald, Helen	D.C.	Younge, Paul Russell	D.C.
Oshinsky, Newton	D.C.		

## FEBRUARY 22, 1943

Kinner, Harold Clayton Ph.G. 1928, The George Washington University	Md.
--	-----

## THE SCHOOL OF ENGINEERING

### BACHELOR OF CIVIL ENGINEERING

JUNE 3, 1942

Douglas, Walter Robinson	D.C.
--------------------------	------

## FEBRUARY 22, 1943

Bassett, Ellsworth W. Fuller, Russell Harrison Pastoriza, Tomás Augusto	Va Oreg Dom.Rep	Raffin, Joseph Vincent T.A.C. Eugene L. Lister Thomas, Albert Morgan, Jr.	N.J. Mass. D.C.
---	-----------------------	---	-----------------------

## BACHELOR OF ELECTRICAL ENGINEERING

JUNE 3, 1942

Criswell, Daryl Leland  
 Jackson, John Edmond  
 (With distinction)  
 Roccati, Edgar John

Ind. Sachs, August Frederick  
 Tenn. Sangster, George Edward  
 D.C. Washington, Ivan Wentthrop

FEBRUARY 22, 1943

Deeters, Edward William, Jr.

Va.

## BACHELOR OF MECHANICAL ENGINEERING

JUNE 3, 1942

Hagenson, Robert Maynard  
 B.S. 1936, United States Naval  
 Academy

N.Y. Verkeper, Dwight Henry

FEBRUARY 22, 1943

Boehly, Henry William  
 Dedick, Eugene Andrew  
 Freinkel, Leonard  
 B.E.E. 1938, College of the City of  
 New York

Va. Husic, William John  
 Pa. McCullough, Robert William, Jr.  
 N.Y. Murayama, Sutei

## BACHELOR OF SCIENCE IN ENGINEERING

JUNE 3, 1942

Berdick, Murray  
 Gagon, Daniel Harvey  
 (With distinction)

N.Y. Magnes, Sidney  
 Calif. Nilson, Ralph Gilbert

FEBRUARY 22, 1943

Talbott, Hamilton  
 B.S. in E.E. 1928, The George Wash-  
 ington University

Mo. vonWald, Walter Anthony, Jr.

## THE SCHOOL OF EDUCATION

## BACHELOR OF ARTS IN EDUCATION

JUNE 3, 1942

Archer, Harvey Earl  
 Auerbach, Dorothy Lewis  
 Brunk, Anne Marie  
 Chapman, Howard Eugene  
 Crites, Elberta Geraldine  
 Cuatt, Dorothy Olive  
 Dacy, Katherine  
 James, Raymond W.  
 Kimble, Harriet Louise  
 Nichols, Phyllis  
 Oldaker, Hazel Leota

D.C. Rose, J. Hugh  
 D.C. Russell, Foster William  
 D.C. Schmucker, Charlotte Magee  
 W.Va. Stingle, Howard Ellsworth  
 W.Va. Stutzman, Elfreida Helen  
 D.C. Tull, Clara Nevel  
 D.C. Velte, Clara Wilhelmina  
 Ala. Walton, Thomas William, Jr.  
 D.C. Wasekov, Alexander Peter Petrovitch  
 D.C. Will, Fern Florence  
 D.C.





## FEBRUARY 22, 1943

Averbach, Rita Pearl A.B. 1937, The George Washington University	Mich.	Norris, Mildred Emma B.S. 1927, Kingston College	Mich.
Davis, Roger Hamil B.Ed. 1938, Southern Illinois Normal University	Ill.	Rosen, Mary Evelyn A.B. 1924, Hood College	Ill.
D.G. Lee, Corinne B.S. 1933, Wilson Teachers College	D.C.	Rusby, William James B.S. 1941, State Teachers College, Iowa, Ala.	Mo.
Fitz, Myra Elizabeth A.B. 1921, University of Richmond	Va.	Rute, Max, Weymouth, Jr. A.B. 1936, The George Washington University	W.Va.
Fox, Gustave Edmund B.S. 1933, State Teachers College, Indiana City, Penn.	Tenn.	Trout, Mollie Earnshaw A.B. 1936, A.B. 1940, Shepherd State Teachers College	D.C.
Heldt, Mary Ellen B.S. 1927, Temple University	Md.	Turner, Olan Eldridge, Jr. B.S. 1938, Wilson Teachers College	D.C.
Istoe, Raymond B.S. 1938, Wilson Teachers College	D.C.	Updike, Lela Cranford B.S. 1937, Wilson Teachers College	Va.
Jackson, Elizabeth Dusen A.B. 1931, Mary Baldwin College	Ill.	Webb, James Henry, Jr. B.S. 1928, University of Virginia	D.C.
Jones, Margaret Dunbar A.B. 1914, New York State College for Teachers	D.C.	Wiler, Jessie Emma A.B. 1940, The George Washington University	
Moss, Kathryn Lears B.S. 1937, State Teachers College, Farmville, Va.	Va.		

## DOCTOR OF EDUCATION

## JUNE 3, 1942

Bish, Charles Edward A.B. 1925, Western Maryland College A.M. 1937, The George Washington University Thesis: "A Determination of Pupil Shortages in Science, Mathematics, and English as Factors in the Improvement of the Secondary School Curriculum"	Md.	Fox, Helen A.B. 1937, A.M. 1939, The George Washington University Thesis: "Student Personnel Work in Schools of Nursing"	Ky.
Fenner, Mildred Sandison B.S. 1931, Northwest Missouri State Teachers College A.M. 1938, The George Washington University Thesis: "The National Education Association, 1892-1942"	Md.	Herrick, Lucile Marx B.S. 1924, University of Minnesota A.M. 1938, The George Washington University Thesis: "A Guidance Program in a Veterans Administration Facility"	Minn.
		Pitts, Clara Louise A.B. 1906, Shorter College A.M. 1926, Columbia University Thesis: "Julia Strudwick Tutwiler (1841-1916)"	D.C.

## FEBRUARY 22, 1943

Gallup, Gladys G. B.S. 1938, Iowa State College A.M. 1937, The George Washington University Thesis: "The Effectiveness of the Home Demonstration Program of the Co-operative Extension Service of the United States Department of Agriculture in Reaching Rural People and in Meeting Their Needs"	D.C.
---	------

## THE SCHOOL OF GOVERNMENT

## BACHELOR OF ARTS IN GOVERNMENT

## JUNE 3, 1942

Baker, Albert Erving Barnett, Louie M. Burns, Richard Carlton Chase, Wilbur Porteus	N.J. Ark. Mexico Ohio	Crammer, Robert Reynolds Creighton, Edwin Milo Edwards, Jesse Hale, Jr. Ferrell, Marshall Hanley	N.J. Kan. Ohio Miss.
--	--------------------------------	---	-------------------------------

## Degrees Conferred

323

Paley, Paul I.	Ill.	Page, William Henry Lee	Va.
Franklin, Florida Noel	D.C.	Poch, Stanley Thomas	Wash.
Page, Edwin Thomas	Ill.	Rosenthal, Gerald Leonard	D.C.
Gonzalez, Soler, Irma Francis	P.R.	Rothrock, John Blaine	D.C.
Grant, Walter L. Stoshie, Jr.	Utah	Skaggs, Bruce	Oh.
Lockart, Andrew	Tenn.	Stopsack, Eleanor Ida	D.C.
Kaye, Homer Cash	Mo.	Weiss, Henry Strauss	D.C.
McNabold, Lavinia Frank	D.C.	Willis, Robert August	D.C.
Melrose, John Edward	N.Y.	Wilson, Otis Dwight, Jr.	Va.
Miller, Joseph	N.Y.	Winthrop, Robert Cecil, Jr.	Pa.
Nelson, Howard Ross II	D.C.	Zeilmer, Daniel Edward	D.C.
Nelson, Margaret Bertha	Ohio	Zepul, Constantine	Ill.
Nordberg, Mylo Mathew	Mass.	LL.B. 1941. The George Washington University	
O'Brien, Paul Frederick	Ohio		
Oliver, Philip Manus	Conn.		

### FEBRUARY 22, 1943

Abrams, George	N.Y.	McCallum, Maurice Duncan	Mi.
Baker, Robert Hopkins	Pa.	Nagy, George Julius	Mich.
Bellows, John Charles	Pa.	Schreiber, Carl	N.Y.
Greenleaf, David S.	N.Y.	Selinger, Philip Rubin	N.Y.
Hendlin, Jack Arthur	Wis.	Vought, Kimber Evans	Pa.
Hawthorne, Robert Glenn	Ga.	Werner, Seymour	N.Y.
Herrman, Jack R. Bert	N.Y.	Zajac, Henry	M.

## MASTER OF ARTS IN GOVERNMENT

### JUNE 3, 1942

Baldinger, Leonard	Pa.	Myer, Mary Catherine	Ind.
A.B. 1941, The George Washington University		B.S. 1930, Indiana State Teachers College	
Grobosz, Stanley Joseph	Calif.	Watson, Clive Francis	Kans.
A.B. 1939, The George Washington University		A.B. 1935, Municipal University of Wisconsin	
McKelsen, Walter	Wash.		
B.B.A. 1943, University of Washington			

### FEBRUARY 22, 1943

Byrns, Kenneth A.	Colo.	Sharpe, Bessie Gardner	Md.
A.B. 1935, Colorado State College of Education		A.B. 1941, The George Washington University	
		Stebbins, Ruth Rebekah	N.Y.
		A.B. 1941, Colby College	

## HONORARY DEGREES

### JUNE 3, 1942

Ross T. McIntire—Doctor of Science	Edwin Martin Watson—Doctor of Laws
William Tyler Page—Doctor of Laws	

### NOVEMBER 24, 1942

Carlos Alberto Arroyo del Rio—Doctor of Laws
--

## SCHOLARSHIPS AND AWARDS

## HOLDERS OF SCHOLARSHIPS

1942-43

*The Baron Andrews Scholarships:* Phyllis Irma Abrams, Helen Irene Mattson, Ethel Leicester  
Waters, John Richard

*The Emma K. Carr Scholarships:* Seymour Lewis Alterman, William Clark Ashby, Richard Patten Ballard, Melvin Bers, Harold Jerome Bobys, Albert Perry Brodell, Jr., Irving Cooper, Andrew Paul Decker, Jr., Eugene F. Hopp, Walter K. Kuntz, Frank Nelson Miller, Jr., James Stuart Roman, Sidney Shulman, Jack Norman Steadburg, Cyril Volk, Jr., Eugene Zimmerman.

Eugene Zimmerman  
The Company: William Schlerker, Jessica L. Moore, Charles Elizabeth Estes, Mary Elizabeth  
Patterson, Rachel Seabrook, Adrienne Warner, Mary Earle Webster

*The 1990 D. A. is Scholarship:* Marian Elizabeth Freehater

The *Charles D. Whitcomb Harvey Scholarship*: Gordon Lee Carver  
The *Long Low Harvey Scholarship*: Betty Maxine Mason

16. H. G. S. ...

University Scholarships: William Dominie Allman, David Morse Barry, Allen [unclear]

Mary Carol Biesemeier, Ella Rhea Blake, Mina Foster  
John Howard Campbell, Geoffrey Foucar Chew, John Church

Erwin Davis, Bertha Dekelbaum, Edwin James Dentz, Lorraine G.

Mildred Hayward, James Edgar Huddleston, Virginia Wartin J...  
Jr., Betty June Karle, Mona Jeanne Keesling, Allen Frederick K...

Kushman, Robert Clinton Ludwig, Margaret Elizabeth

Bowman Parkinson, Marie-Louise Ralph, Mary Virginia R

Eileen Janet Shanahan, Mary Elizabeth Sheppard, Pauline Ann Smith, Josephine Marie Spence, Cecil Grady Spaulding, Morton Robert Steinberg, John Albert Tamm, William Henry Taylor, Jr.,

Tompkins, Frank Bryan Tutwiler, Ruth Louise Votaw, John V. W., Allen

*The John Hay Metcalf Scholarship: Benjamin Franklin Edwards II*

*The National League of Mothers* (1911) by Robert Alexander Campbell, 1911  
*Book of Mother's Day* (1911) by Robert Alexander Campbell, 1911

*The Newist*—S. 1000

*Evening Star:* Warren Wright  
*Washington Daily News:* Lewis Alfred Riley, Jr.

Washington Post, Harry I. ...

*The David Spencer Scholarship: Shirley Catherine Taylor*  
*Los Angeles, November 1966. Robert W. Woodruff, Chairman, National Herbert Hoover*

*The John Withington Scholarship: Marian Elizabeth Brockner*

## AWARDS

1941 42

*First Class Sigma Freshman Prizes in Chemistry:* Oscar Fritz Noss, Jr., Allen Garthner W. Lee

*1961-62 Senior Prize in Chemistry:* John Pierce Hewlett, Jr.  
*1962-63 Senior Prize in English:* Peter Hanson

*John A. King, Ph.D., President, American Psychological Association*

**Civil Engineers Prize:** Walter Robinson, 1900

Ruech Prize in Chemistry: Murray 1908

[illegible]

E. K. Cutter Prize in English: Priscilla Dana Young

Harry Cassell Davis Prize in Public Speaking

Fall Term: First—John Virgil White  
Second—Marjorie T. ...

Third—Teddy Marie K...

Winter Term: First—Cullen Yates Christensen  
Second—Richard Paul Bolt Markoff

- Latin Dactyl Poets in Pagan Stranding*  
 First: John Francis Xavier Britt  
 Second: Harry Cole Rogers  
 Third: Elizabeth Ann Gould  
*William Thackeray Dactyl Poet in Ophthalmology*: Jean Ernest Pearson  
*Dactyl Poet in Junior Scholarship and Literature*: Louise Ellen Farnell  
*Datta Sigma Rho Prizes to the Winner of the International Debate*: Phi Sigma Kappa, Delta Zeta  
*Datta Zeta Prize in Botany*: Vernon Franklin Bond, Jr.  
*Flower Prize in Patent Law*: Victor Munt  
*European History Prize*: Zeta Theta  
*Justice League III Memorial Prize in Social and Physical Sciences*: Harold Arthur Nashott  
*W. L. F. Prize in Chemistry*: Norman Edward St. John  
*Edward Livingston Gould Prize in American Literature*: Margaret Capeland  
*James Douglas Gould Prize in French*: Louise Barry  
*Morton Richardson Gould Prize in Pharmacy*: Donald William Smith  
*Gardner G. Hubbard Prize in American History*: Robert Stuart Morrison  
*Kappa Delta Scholarship Prize for Translating Scholarships*: Phyllis Irma Abrams  
*Kappa Kappa Gamma Prize in English*: Ruth Wright  
*Mercer Award Prize in Latin*: Jack Newton Hays, Jr.  
*Onion Award Prize in Secondary Scholarship and Literature*: Jessica Golan  
*John Orlowski Prize in Literature*: Michael Peter McKel  
*First Year Phi Eta Sigma*  
 Second Year: Phi Eta Sigma  
*John Orlowski Prize in Medicine*: Oscar Simon  
*Phi Eta Sigma Prize for Sophomore Scholarship*: Gregory Eugene Crow  
*Phi Eta Sigma Prize for Freshman Scholarship*: Oscar Fritz Ness, Jr.  
*Phi Mu Prize in Political Science*: Carolyn Lee Rose  
*Phi Sigma Kappa Prize to the Winner of the Freshman Oratorical Contest*: John Vinod Wain  
*Phi Sigma Sigma Prize in Zoology*: Dorothy Frances Jones  
*Phi Sigma Sigma Newton Cooper Prize in Psychology*: Mary Jo Olson  
*Phi Beta Phi Literary Prize*: Kathryn Elizabeth Huxley  
*Phi Lambda Theta Prize for the Most Meritorious Master's Thesis in Education*: Louise Manner  
*Sigma Kappa Prize in Chemistry*: Oscar Fritz Ness, Jr.  
*Sigma Kappa Prize in English*: Nancy C. Rogers  
*Sigma Psi Sigma Prize in Physics*: Anne Louise Bonn, Paul Miller  
*Sigma Psi Sigma Prize in Latin*: James Lee Tamm  
*Theta Tau Prize in Psychology*: Robert Jack Loring  
*Thomas F. Ryan Prize in History*: Herbert Emerson F. Auld  
*Alexander Williamson Women's Peace Prize*: Edward August Mathews

## STUDENT ASSISTANTS

1942-43

- Biology*: Barbara Grant, Lorna M. Neese  
*Botany*: Carolyn Farnham, Lisa Rose, Ruth Wright  
*Business Administration*: Harold Babes, Albert Percy Brundell, Jr., Howard Gilbert, A.B., Robert  
*Chemistry*: Milton Hugh Beyer, B.S., Geoffrey Eugene Crow, Edward Herbert DeBorja, Jr.,  
 Dorothy Farnham, Lisa Tatham, B.S., Charles George, B.S., Robert Kelly, Graduate,  
 Mrs. Fredrick Kuchler, Jr., Lisa Louise Lamm, M.S., Christine Leibel, A.P., James  
 Leonard, Jr., Gerda Mueller, A.P., Norman Morrison, Edward Mulvey, Charles Alexander  
 Smith, Jr., Frank Nelson, Miller, Jr., Philip Rose, Mary Jeanette Stark, B.S., Steven  
 St. John, Frank Brown, J. Ward Foster, K. Ward, Geoffrey Woodward, B.S.  
*Civil Engineering*: Robert E. Lamm, Jr.  
*Education*: Mary Ann Bonn, Charles Gordon, Louis Hapner, Benjamin Raphael Mekela, William  
 Arnold, Jr., Alice Newcomb, Horace Spier  
*Electrical Engineering*: William F. Bowers  
*History*: William Clark, Abby, Roy Harry Hedges, Robert Thomas Howard, Jeannette Marr,  
 Louise McNatt, Marion M. Matson, Howard E. Miller, B.S.  
*Library*: Leonard Akman, Stanley Carme, Albertson, William David Cassidy, Dorothy Cooke,  
 B.S., Emily Cottrell, Dora Court, Helen Caplan, James Albert Fowler, Marion Elizabeth  
 Finkelstein, Martin Goldberg, Davis Jeanne Gilman, Margaret Gendry, Renee Glick, Norma  
 Hatfield, Andrew Jackson, Samuel Keller, William Kessler, Marguerite Klotzka, Virginia  
 Krieger, Nicholas Lakos, Barbara Lybelle, Susan McNamee, Mary Elizabeth Miller, Barbara  
 Monroe, Betty Myron Matson, Dean Nork, Barbara Sargent, Charles Sarrett, Leta  
 Schneider, Mary Elizabeth Sheppard, Florence Irene Shumaker, Faith Sutton, Nellie Zeta  
 Thompson, Carolyn Thurmond, Harriet Weber, Nancy Ann White.



*Mechanical Engineering:* Dirk Brady, Robert McCullough

*Pharmacy:* Howard Thomas Brock, Clifford Goodman

*Physical Education for Men:* Paul Weber, Edward Willamowski, B.S.

*Physics:* Elsie Fisher, Thomas Henry Heine, Edmund Douglas Schreiner, John Tompkins

*Political Science:* Nellie Carr Anderson, Aaron Layne

*Psychology:* Constance Field, Mary Howell, Richard Littman, Mary Mathews, A.B., Phoebe Overstreet, George Horsley Smith, A.B.

*Public Speaking:* Timothy Sweeney

*Statistics:* Willard Osborne Ash, A.M., Andrew Fraser, B.S. in M.E., A.M.

*Zoology:* Anna Lucille Bean, A.B., Bertie Nelson, Walter Newton, B.S., Bertram Schneider, Dorothy Travis

# STUDENTS REGISTERED

## SUMMER SESSION 1942

A			
Aarons, Isadore A.	Ga.	Ammerman, Harvey	Conn.
B.S. 1933, University of Chicago		B.S. 1936, The George Washington	
Abrahamowitz, George	N.Y.	Univ. of Va.	
Adams, Peggy Margaret	Calif.	Ammons, William Louis	D.C.
Adams, Betty J.	D.C.	Amos, Edgar	Pa.
Adams, George David	D.C.	B.S. 1934, University of Pennsylvania	
A.B. 1941, The George Washington		Amosson, Hyman Joseph, Jr.	Calif.
University		Amosson, Anne Dewitt	D.C.
Adams, Howard Dwight	D.C.	Amosson, Alexander Herbert	D.C.
A.B. 1941, Miami University		A.B. 1941, The George Washington	
Adams, Ralston H.	MD.	University	
Adams, Richard Hugh	D.C.	Anderson, Annie	Tenn.
Adams, Samuel Webster	D.C.	B.S. 1936, Tennessee State Teachers	
Adams, Keith Paul	Kans.	College	
Adams, Mary Wynette	Ga.	Anderson, Bernard Charles	Va.
Adkins, Lewis Watten, Jr.	D.C.	Anderson, Carl Douglas	Mich.
Aker, Michael H. B.	D.C.	Anderson, Charles Axel	Mich.
Alex, David	Va.	A.B. 1941, Ohio College	
Akai, Robert Mason	Mass.	Anderson, Thomas Joseph	Nebr.
A.B. 1939, Wesleyan College		Anderson, Victor R.	Calif.
B.S. 1940, Columbia University		Anderson, Norman Carr	D.C.
Althoff, George Samuel	Ill.	Anderson, Otto Ray	Okla.
B.S. 1942, Temple University	Pa.	Andrews, William Foster	D.C.
Altschuld, Charles Donald	Ill.	Andrews, John J.	Mich.
B.S. 1942, University of Illinois		Andrews, Don Everett	Va.
Aker, Zubeir	Turkey	A.B. 1941, The George Washington	
L.L.B. 1934, University of Istanbul		University	
Doctor of Laws 1937, University		Andrews, Len Harvey	Calif.
of Strasbourg		Andrews, Vernon Emerson	Va.
Akman, Leonard Carl	D.C.	Andrews, Burton Ray, Ltd.	D.C.
A.B. 1941, The George Washington		A.B. 1941, A.M. 1943, The George	
University		Washington University	
Albert, Alfred Lebe	D.C.	Ames, David Dean	D.C.
Albert, Charles William	D.C.	Ames, Walter	Calif.
A.B. 1940, Brown University		B.S. 1939, University of California	
Allen, William H.	MD.	Appel, Herbert Louis	D.C.
Alderman, Edith Victoria	D.C.	Appel, Rose Wilmont	D.C.
Alexander, Andrew William	D.C.	Appel, John H.	Va.
Alexander, John William, Jr.	MD.	A.B. 1941, San Jose State College	
Alexander, Morley	N.Y.	A.M. 1941, Stanford University	
Alexander, Roy Malcolm	Pa.	Appel, Jacob Jack	Conn.
Alcox, Everett Corbin	D.C.	Appel, George A.	Pa.
Alford, Elizabeth Catherine	N.Y.	Arns, Harold Victor	Wash.
Allardice, Corbin Charles	N.I.	A.B. 1936, Western College	
A.B. 1942, Seton Hall College		A.M. 1941, The George Washington	
Allen, Grace F.	D.C.	University	
Allen, Merle R.	D.C.	Arns, Robert Forrest	Penn.
Allen, Farnell Edgar	Pa.	Arns, John Edgar	Iowa
A.B. 1938, Lafayette College		Arns, Francis Hugh	N.Y.
Allen, Arthur	D.C.	A.B. 1941, Hunter College	
A.B. 1938, The George Washington		Armstrong, Catherine Elizabeth	Va.
University		Armstrong, Robert Herman, Jr.	D.C.
Allison, Theodore	MD.	Armstrong, Woodrow I.	Okla.
Alperovich, Jacob	D.C.	Arnold, Dorothy Louise	N.I.
Alpert, Carl	Mass.	A.B. 1941, Smith College	
Alphen, Ralph Asher	D.C.	A.M. 1941, Indiana University	
Alvord, Charles Herbert, Jr.	Tex.	Arnold, M. Alpo Hill	Ga.
Ames, Ruth Barbara	Mich.	Ata, Thomas	Va.
Amick, Frederick Eugene	W.Va.	Armstrong, Irving	N.Y.
Amnicell, John Samuel, Jr.	Pa.	Armstrong, Paul Charles	Mass.
A.B. 1941, Muhlenberg College		Asby, Marjanna	Ind.
		Asby, Warren Leslie	D.C.
		Asford, Anita Appley	S.D.



## 329

Beaton, Fulal Marine	Ark.	Biathrow, Lindsay Spencer	Mass.
B.S. in Ed. 1910, Arkansas State College		B. E. 1911, Boston University	
Beaton, Robert Louis		Baker, Peter	Mass.
Beaton, Stuart Campbell	Ark.	Baker, Lester	Mass.
Beaton, Woodward Lorne	Va.	Baker, Mary Mabel	N.Y.
Beck, Arthur Frances	Va.	Baker, Peter, Virgil	D.C.
Beck, Hans M.	N.Y.	Baker, William	Ia.
Beckman, Kenneth Woodrow	Ill.	AB 1911, The George Washington University	
Beck, Max Collingsworth	Iowa	Baker, William Jacob	D.C.
AB 1931, Park College	D.C.	Baker, Mary Ann	D.C.
Beck, Pierre Emma	D.C.	Baker, Peter, Edgar	D.C.
Beck, Frank Meade	Md.	Baker, James Wesley	K.
Beck, Iris Yvonne	D.C.	B.S. 1911, University of Kentucky	
AB 1911, Florida State College for Women		Baker, William	D.C.
Bell, Mary K. Helene Morris	Nev.	Baker, Norman George	D.C.
Bell, 1911, Stanford University		AB 1911, The George Washington University	
Bell, Sue Lewis	W.Va.	Baker, George Edward	Mass.
Bell, William Franklin	D.C.	Baker, Mary	D.C.
Bellman, Charles Leslie	D.C.	Baker, Louis I.	D.C.
Bellman, Charles Henry	D.C.	Baker, Freda Adelaide	D.C.
Bellman, Dorothy Pearl	N.D.	B.S. 1911, The George Washington University	
Bellman, Roger Joseph	N.Y.	Baker, Joseph Henry	Ia.
Bell, Ezra Lewis	N.Y.	AB 1911, University of California	
Bellman, Samuel	D.C.	Baker, Joseph	N.Y.
B.S. 1911, Columbia University		Baker, Joseph, Ralph	N.I.
M.D. 1927, Georgetown University		B.S. 1911, College of William and Mary	
AB 1911, The George Washington University		Baker, City Virginia	Md.
Berard, Vernon E.	N.Y.	Baker, Joseph, Walter	Ia.
Berard, James Harrison	Md.	B.S. 1911, University of Nebraska	
AB 1911, University of Maryland		B.S. 1911, Pennsylvania State Teachers College	
Berard, Virginia John	Va.	Baker, William Washington Jr.	R.I.
Berard, Emily Frances	Md.	Baker, Henry Allen	Va.
Berard, Everett G.	Over.	Baker, George	Calif.
Berard, Charles Andrew	Mass.	AB 1911, University of California	
B.S. 1911, Montana State College		Baker, Henry Donald	D.C.
Berard, George Vincent	D.C.	Baker, William Kenneth	D.C.
Berard, Elmer Oliver	Md.	Baker, Charles T.	Ia.
Berard, Harold Eugene	Ia.	B.S. 1911, New Jersey State Teachers College	
Berard, Kenneth Walter	D.C.	Baker, Henry William	Va.
Berard, Louise	N.Y.	Baker, Joseph	N.Y.
Berard, Gertrude Sylvia	D.C.	Baker, Mary	N.Y.
Berard, Harold	N.Y.	Baker, Stephen	Va.
Berard, Joseph	N.Y.	B.S. 1911, Rutgers College	
Berard, Joseph, John	N.Y.	Baker, Albert	Ia.
Berard, Joseph, Arthur	D.C.	Baker, Mary Frank	N.Y.
Berard, Bernard	N.Y.	Baker, Henry George Jr.	Va.
B.S. 1911, The George Washington University		Baker, Susan Pearl	Ia.
Berard, Carol Berlice	D.C.	Baker, Albert	D.C.
Berard, Cyrus	D.C.	AB 1911, University of Minnesota	
B.S. 1911, College of the City of New York		Baker, Leonard R.	Ark.
Berard, Henry	N.Y.	Baker, John	Calif.
Berard, Irwin Leonard	N.I.	B.S. 1911, Syracuse University	
Berard, Mary	N.Y.	Baker, Louis Edward	N.C.
Berard, Mae Adele	N.Y.	AB 1911, The George Washington University	Ia.
B.M. 1911, AB 1912, Bethany College	M.	Baker, Alice	D.C.
Berry, Anna Douglas		Baker, Henry	D.C.
AB 1911, Haskinson College	Ark.	Baker, George Ann	D.C.
Berry, Guy Nell	Md.	Baker, Robert M.	D.C.
B.S. 1912, Northwestern University		Baker, George Victor	W.Va.
Berry, John Irrelford	Va.	Bearne, George Ernest	D.C.
Berry, William George	Ia.		Un.
Berryman, Dorothy M.	D.C.		
Bertz, Joseph James	Pa.		
B.S. 1911, Mansfield State Teachers College (Pennsylvania)			
Besse, William Herbert	Ia.		
Betts, Mary McIntire	D.C.		
Bialek, Robert	D.C.		



Bowen, Leonard Lee	D.C.	Brown, Ruth Marjorie	Wash. Ark.
Bowers, Edwin Ralph	Va	Brown, Lillian Wee	
Bowers, Richard Simpson	D.C.	A.B. 1928, Henderson State Teachers College	Pa
Bowler, James Vincent	D.C.		N.I.
Bowman, Geneva Nell	D.C.	Brown, Lily, William Walter	S.D.
B.S. 1931, Wilson Teachers College		Browning, Joseph Wilmont, Jr.	
Bowman, William Loran	D.C.	A.B. 1940, University of Alabama	
Boyer, Ruth Ann	Okl.	Branger, Vernon Walter	
Boyd, Frances Porter	Tenn.	B.S. 1940, University of South Dakota	Va
B.B.A. 1938, University of Chattanooga		Brandage, Dean Edward	D.C.
Boyd, Thomas I.	Pa	Brown, G. Maudie	Pa
Boyd, William D.	D.C.	Brown, John N. K., Jr.	D.C.
Boyer, Susan Elizabeth	Md.	Browning, Albert	Ohio
A.B. 1927, Western Maryland College		Brown, Dorothy Marie	Va.
Boyle, James Philip	Okl.	Buckham, George Henry	
B.S. 1942, Oklahoma University		Buckham, Lillian Crease	Calif.
Brazz, Brown John	D.C.	A.B. 1924, Bryn Mawr College	Tex.
Brazz, Edward Franklin	D.C.	Buckner, James Elliott	Tenn.
Brady, John Charles	Pa.	Buckner, Joseph Margaret	Mo.
Brady, John Curtis	D.C.	Buckner, Mary Louise	
Brady, Dora S.	D.C.	Buckner, Ernest Howard	
Brady, Jack Darwin	Va.	Bugess, Charles Henry	
Brady, James Peyton	Va	A.B. 1931, A.M. 1935, Ph.D. 1936, Harvard University	D.C.
Bragg, May Elizabeth	D.C.	Bugess, Chester Warren	U.S.
Bralove, Richard Sidney	D.C.	Bugess, Ronald Montelle	D.C.
Braslow, Judith Herbert	N.H.	Bugess, Virginia Leslie	N.Y.
Braslow, Ruth Sumville	N.Y.	Burke, Martin Leonard	Pa.
Braslow, Sylvia A.	N.Y.	Buckett, Henry F.	D.C.
Braver, Arthur	D.C.	Burnett, Melba Luten	D.C.
Breaux, Kathryn V.	D.C.	Burnett, Sue Stokely	
Breckinridge, John	Mo.	A.B. 1944, The George Washington University	Md.
A.B. 1941, The George Washington University		Burns, Mary Agnes	
Breeskin, Ned Daniel	D.C.	A.B. 1921, State University of Iowa	D.C.
Bree, William Roy, Jr.	Md.	A.M. 1927, Columbia University	N.Y.
Brennan, John Wright	D.C.	Burns, Regina Adele	
Bresler, Arthur S.	N.Y.	Burpman, Caroline Frances	
Brewer, Scott Ridge, Jr.	Md.	B.S. 1938, College of William and Mary	Pa.
Brice, Henry Turner, Jr.	Ga.	M.S. 1939, University of Maryland	Maine
Bridgetta, Jeanne E.	Pa.	Burrows, Spencer Wilson	
Briggs, Francis Gifford	Ky.	Burston, Samuel David	Md.
Briggs, Gillian Hannah	Md.	B.S. 1940, Bates College	D.C.
Brin, Carlos	Panama	Burton, Joseph Chandler	D.C.
Brinkman, William A.	D.C.	Burton, Sarah Justine	Md.
Brinkmeyer, Charlotte Amelia	Iowa	Bush, Joseph Francis	Ky.
Bristow, Joseph Quayle	Va	Bush, Virginia	
Broadus, Florence Farwell	D.C.	Bushart, June	
B.S. 1940, Wilson Teachers College		A.B. 1940, Murray State Teachers College	Iowa
Brock, Alvin Chapin	Md.	Bushman, Alexander	
Brodell, Albert P.	Md.	A.B. 1940, Morningside College	
Brodell, Jean Marie	Va	B.M. 1941, University of South Dakota	S.D.
Broderick, Herbert Reginald, Jr.	R.I.	Bussey, Howard Emerson	D.C.
Broderick, Katherine Emmet	Mass	Buterbaugh, Charles Christopher	Calif.
Brodie, Sidney Irving		Butkin, Allan Starbuck	Pa.
A.B. 1940, Harvard University		Butkus, Carl John	Ala.
Brody, William Arnold	Minn.	Butler, Ralph Nathaniel	Va.
Brogan, Joan Elizabeth	Calif.	Butler, Ruth Ann	D.C.
Brook, Mollie Monica	N.Y.	Burns, William Emil	Ark.
Brooks, Janet M.	D.C.	Byers, Evelyn	
Brotman, Alfred B.	D.C.	Byrd, Ramond Dorse	
Brown, Craig Franklin	D.C.		
Brown, James Robert	Md.		
Brown, Jeannette Alta	D.C.		
Brown, Leon West	Va		
A.B. 1931, Maryville College			
Brown, Lida Crockett	Va		
Brown, Lola Kathryn	Tex.	Cadel, Bernard Howard	N.J.
A.B. 1935, West Texas State Teachers College		Callies, James Francis	Pa.
Brown, Raymond Nathan	D.C.	Calen, Carroll A.	Wash.
Brown, Richard Kennard	D.C.	L.L.B. 1936, University of Washington	Mo.
A.B. 1926, Davis and Elkins College		Callin, Martin Reeves	D.C.
M.S. 1932, West Virginia University		Callin, Leonard	D.C.
		Callin, Raphael David	D.C.
		Cajigas, Tomas Robert	

# Students Registered

331

Calden, Isabel M. A.B. 1921, University of Minnesota A.M. 1922, University of Michigan Ph.D. 1929, Yale University	N.Y.	Chapman, Gordon Lewis B.S. 1939, University of Maine M.S. 1941, University of Vermont	Maine
Caldwell, Samuel Craighead Caldwell, Mary J. A.B. 1940, Syracuse University	N.C. N.Y.	Chapman, Howard Eugene A.B. 1942, The George Washington University	W.Va.
Callan, Margaret Elizabeth A.B. 1942, The George Washington University	D.C.	Chapman, Furtz Reineger Chapman, Abbie Hume Charles, Jessamine Lorraine Chase, William Parsons A.B. 1942, The George Washington University	D.C. S.C. D.C. Ohio
Caludes, Atunda Calvo, Gladys Cammisa, Guido Frank Campbell, Lorene Campbell, Louis Cellars, Jr. Campbell, Mary Elliott Campbell, Paul Stone Campbell, Robert Alexander, Jr. Canois, Nicholas Mathew Canois, Ciro Anthony Canning, Geraldine Elizabeth B.S. 1941, Tufts College	N.Y. Panama Conn. Ark. Va. Md. Calif. N.J. D.C. N.Y. Maine	Chasen, Irving Lee Chas. A. Aie L.B. 1942, Chicago Teachers College Chasnov, Myra B.S. 1939, Florida State College for Women Chesko, Mary Elizabeth Chesnut, Rachael Chesnut, Frank Louis B.S. in E.E. 1942, Missouri School of Mines	D.C. Ill. Fla. Mass. D.C. D.C.
Cannon, Gerald Cannon, John Andrew Cantrell, Uvalde Capps, Joseph Roper Capshaw, Rosemary Carl, William Thomas Carlson, Arnold Anton Carlson, Arthur W. B.S. 1939, Wisconsin State Teachers College	N.Y. Md. C.D. S.C. I.C. Okla. Kans. Minn. Wis.	Chertack, George B.S. 1939, College of the City of New York Chervitz, Alexander Chesnut, Evelyn Ruth Chesnut, Augustus Bruce Chesnut, David B.S. 1941, Boston University	D.C. D.C. D.C. Ind. Mass.
Carlson, David Jenningston Carlstedt, Clifford Carlmichael, Leah K. A.B. 1918, University of Washington Carmen, John Chertorton A.B. 1941, University of Utah Carney, Edward Joseph Carpenter, Gladys Rosemary Carr, William Keith Carr, Lester Ernest Carroll, George Joseph A.B. 1939, Clark University Carroll, Mary Kathryn Carroll, Ruth Carroll, Walter, Bard A.B. 1941, University of Illinois Carter, John Miles Carter, John Paul Carter, Marjorie Dargan Carter, Mary Virginia Carter, William Everett Carver, Lavinia Marie A.B. 1924, A.M. 1937, The George Washington University	N.Y. Minn. Wash. D.C. D.C. Fla. Va. Md. Mass. Mo. N.J. Ill. D.C. D.C. Va. Md. Va. D.C. Ill. Conn. Wash. Pa. Mexico Va. Mass. Nob. D.C. D.C. Idaho Md. S.C. China D.C.	Chesnut, Martin Louise Chesnut, Robert Voltaire Chesnut, William Chesnut, Alexander Chesnut, John Stephen Chesnut, Conrad Chesnut, John Anthony Chesnut, Ernest Lathrop Chesnut, Samuel Frances A.B. 1939, A.M. 1940, L.B. 1949, University of Alabama Chesnut, William Wendon Clark, Allen Calhoun Clark, Betty Ann Clark, Crandon Francis Clark, Helen A.B. 1935, Duke University Clark, John Palmer, Jr. B.S. 1942, Lehigh University Clark, Mary Lee Clark, Martin Bush Clark, Robert William Clark, Susan B. Clark, William Carl B.S. 1942, Cumberland University Clark, Dorothy Louise B.S. 1941, Washington College Clark, James Hooker Clark, John James Clark, M. Thomas Clark, Robert Love Clark, Alva Thomas Clayton, Betty Jean Clayton, John Robert Clayton, Sylvia White Clayton, William Frank Clements, Barbara Clements, Eugene Clement, Eugene James Clement, Henry Clement, Robert Norwood B.S. 1910, Dickinson College Cobb, Thomas Lambert	D.C. D.C. Conn. Pa. D.C. D.C. D.C. D.C. Ala. S.C. D.C. Conn. N.J. Ga. Pa. Pa. Ill. Md. Md. N.Y. Tenn. S.C. Pa. D.C. D.C. D.C. Va. Tex. Md. Mo. D.C. Mont.

[illegible]



# Students Registered

333

Carrar, Dorothy Bernadine	D C	Deeters, Edward William	Va.
Carr, Rendell Leroy	W Va	DeGroot, Frances Mary	Mi
C.B. 1927, Marshall College		DeGroot, Helen Henshaw	Va.
Carr, Cooper Guyron	Va.	DeGroot, Margaret Louise	D C
Carr, Carlos Byron	N Y	DeGroot, James Gordon	Utah
Carr, Lyle S.	Utah	DeGroot, Louis N.	Ill.
Carter, Martin Alvin	Pa	DeGroot, Abraham Joseph	D C
Catruella, Juliette K.	Ga	DeGroot, Otto Joseph	N Y
		DeGroot, Herbert Ruben	Tex.
		DeGroot, Lyman C.	Mi.
D		DeGroot, Thomas C.	D C.
Dabney, Anne Elizabeth	D C.	DeGroot, Thomas R.	
Daley, Charlotte	D C.	DeGroot, Lane Katherine	D C.
Dames, Joseph Gordon	Idaho	DeGroot, Margaret Sabina	Ill.
B.S. 1926, Utah State Agricultural		DeGroot, Frank Joseph	N Y.
College		DeGroot, Eugene Eugene	Mi.
Dais, Dana Rowland	Ohio	DeGroot, Michael I.	Tex.
A.B. 1941, Ohio University		DeGroot, The George Washington	
Dallan, Carlos Lee	PR	University	
A.B. 1942, The George Washington		DeGroot, Edward Mary	Pa.
University		DeGroot, The George Washington	
Dalton, Gerald Edward	D C	University	
B.S. 1942, Seton Hall College		DeGroot, James James	D C.
Damerata, Carlton Sherwood	D C.	DeGroot, Michael Joseph	Panama
Danaher, Glen Daniel	N Y.	B.C. 1935, College De Maria	
Darby, Dorothy Jean	D C.	University	
Darby, Eleanor Nurse	D C.	DeGroot, Lewis Fisher	Mass.
Darby, Ruth	D C.	Pa. B. 1941, Holy Cross College	
Darmstadter, Henry	D C.	DeGroot, Louis Francis	Mass.
Darmstadter, Henry A.	D C.	DeGroot, Ruth Elizabeth	D C.
Darmstadter, Charles Jean	D C.	A.B. 1941, Mount Holyoke College	
Darmstadter, Maxine	D C.	DeGroot, Marie Emma	N Y.
A.B. 1935, M.S. 1937, New York		A.B. 1941, Holy Cross College	
University		DeGroot, Katherine C.	D C.
Darmstadter, Charles Raymond	Minn.	DeGroot, Robert Gordon	N J.
Darmstadter, John Thomas Cotton	Minn.	DeGroot, Harold Robert	D C.
A.B. 1941, The George Washington		A.B. 1941, The George Washington	
University		University	
Davis, Roger Rogers	Calif.	DeWitt, Harry Martin	Ma.
Davis, Melva Bates	D C.	B.S. 1941, Virginia Polytechnic	
Davis, Anne Eleanor	N Y.	University	
Davis, Arthur Irving	N J.	Dixon, Keith Thomas	Tex.
Davis, Bertha S.	D C.	Dixon, Carol Joseph	N Y.
Davis, Charles Russell	Tex.	A.B. 1941, Western Memorial	
Davis, Catherine	D C.	University	
Davis, Elizabeth	D C.	Dickerson, Charles Alexander, Jr.	D C.
Davis, Frank Howard	D C.	Dickerson, Robert	Pa.
Davis, Harold Alward	D C.	A.B. 1941, Pennsylvania State College	
Davis, Mary Elean	D C.	Dickerson, Xav. Benson	N C.
Davis, Robert Hamal	Ill.	B.S. 1941, University of North	
B.L. 1941, Southern Illinois State		Carolina	
Normal University		Dickerson, Donald Leon	Calif.
Davis, Ruby O.	Ark.	Dickerson, Joseph	Ill.
Day, Mary Volma	D C.	A.B. 1941, Virginia College	
B.S. 1931, New York State College		Dickerson, Douglas Mary	D C.
for Teachers		Dickerson, Anne Mary	D C.
Day, Robert Ford	D C.	B.S. 1941, Western Teachers College	
Dea, Franklin	Calif.	Dickerson, William M.	D C.
Dean, Elizabeth	D C.	B.S. 1941, Western Teachers College	
Dean, John Joseph	N Y.	Dickerson, Joseph J.	N Y.
A.B. 1941, The George Washington		A.B. 1941, Western College	D C.
University		Dickerson, Ralph Edsworth, Jr.	D C.
Deane, Courtney Wilson	D C.	Dickerson, John	N Y.
Deane, Harry Gordon, Jr.	D C.	Dickerson, Anne William	Mi.
A.B. 1941, Harvard University		Dickerson, William Robinson	Calif.
Deavers, William P. Jones	D C.	A.B. 1941, Princeton College	
DeBart, Walter Claude	La.	A.M. 1941, University of Cincinnati	
DeBart, Edward Herbert, Jr.	Va.	Dickerson, John Paul	Va.
Dedick, Joseph Alfred	Pa.	Dickerson, Robert	N Y.
Dedick, Andrew Paul, Jr.	Pa.	M.E. 1941, Stevens Institute of	
A.B. 1941, The George Washington		Technology	Pa.
University		Dickerson, John Paul	
Dedick, Betty Jean	Pa.	B.S. 1941, University of Pittsburgh	
Dedick, Eugene Andrew	Pa.		
Deeter, William Taylor, Jr.	Pa.		





# Students Registered

335

Ensign, Allan Beaumont	Va	Feldman, Sadie B.	Md.
Epstein, Gladys Florence	D.C.	B.S. 1938, Johns Hopkins University	
Epstein, Isaac	N.Y.	A.M. 1948, The George Washington University	
Epstein, Rhoda Bernice	D.C.	Felix, Alma Sue	N.M.
B.S. 1938, The George Washington University		A.B. 1934, University of Arizona	
Erby, Hazel LaRue	Tex	Fellman, Ralph H.	D.C.
Erdman, Donald Alan	D.C.	Fenton, Richard Lee	D.C.
Ericksen, Helen Virginia	Minn	Ferguson, Earl Edwin	D.C.
A.B. 1939, Gustavus Adolphus College		Ferguson, Marjorie Louise	D.C.
Erison, Betsy	D.C.	Fester, Duane John	D.C.
Erne, Hazel Irene	S.D.	Fetterly, Martha Jane	Ind.
Ernst, Charles Mills	Calif	Field, Constance Robinson	Kans.
A.B. 1939, Whitman College		Field, Lee M.	Ky.
Ertz, Ruth D.	D.C.	Field, N. Hazel	Md.
Eck, Victor Henry	D.C.	Fields, Robert	N.Y.
Escher, Kenneth S.	Pa.	Fields, Sidney J.	N.Y.
B.S. 1936, Duquesne University		Finn, Angela Mary	Mass.
Ester, Richard Lee	Tex.	B.S. 1937, Massachusetts State College	
B.S. 1915, The Citadel		Finn, Charles Alce	Iowa
A.M. 1937, University of Houston		Fink, William James	Ill.
A.B. 1939, Baylor University		A.B. 1939, DePaul University	
Evans, Blaine	Minn.	Finkelstein, Harold Alexander	N.Y.
Evans, Sarah Endora	Ky.	Falletter, Margaret Danrosch	D.C.
A.B. 1945, Lambuth College		Foley, James J.	S.D.
Everly, Margaret Madonna	Va	Fannerson, Joseph Patrick	Mass.
Every, Allen	D.C.	Foster, Dorothy Noreen	Iowa
Ewen, William H.	Idaho	Foster, Nanci Leroy	D.C.
Ewing, Lesley Clark	D.C.	Foster, Richard Henry	D.C.
A.B. 1940, The Johns Hopkins University		B.S. 1939, The George Washington University	
Eyster, Marguerite Butts	D.C.	Fish, Bernadine C.	Tenn.
Fabing, William DeLoe		Fishbein, Gordon William	D.C.
Fain, Thomas Alexander	Ohio	Fitch, Stephen S.	N.Y.
Fair, Robert James	Okla.	Fisher, Barbara Anne	D.C.
Fatchild, Fannie Pauline	Ind.	Fisher, Edward A.	Md.
Fatchild, John Phillip	Mass.	A.B. 1942, Wooster College	
A.B. 1940, The George Washington University	D.C.	Fisher, Eunice	Mich.
Falzer, Louis I., Jr.		Fisher, Geraldine Mercedes	D.C.
Fankhauser, Robert Kingsley	Ill.	Fisher, Harriet Ann	Md.
B.S. 1941, Ohio University		Fishman, Eleanor Arthur, Jr.	W.Va.
Farmer, Robert Walter	W.Va.	Fisk, Leon Waterbury, Jr.	Calif.
Farnham, Diana Reynolds	Va	Fisk, Dorothy A.	Va.
Farr, Keith F.	Calif.	Fitz, Geraldine Marie	Maine
A.B. 1941, University of Utah	Utah	A.B. 1939, Washington College	Md.
Farr, Mary I.		Fitzpatrick, Hugh Michael	Pa.
B.S.C. 1949, University of Georgia	Ga.	Fitzpatrick, John Raymond	D.C.
Farrell, John Rhea		Fitzsimmons, Roy Gerald	N.I.
Farrell, Joseph Peter	D.C.	A.B. 1937, Seton Hall College	
Farwell, Dorothy Ellen	D.C.	Flaherty, Robert Courtney	Va.
Fawcett, John Gray	D.C.	Flaherty, Robert Lee	Tex.
A.B. 1940, Colgate University	N.J.	Flaherty, Anna Haskell	D.C.
Fazzari, Frank Charles		Flax, Clara Woodard	N.Y.
Feast, Joan Cannon	D.C.	Fleashman, Beatrice	D.C.
Fedotov, Anthony Nicolas	D.C.	A.B. 1940, The George Washington University	
M.E. 1931, Lomonosov Mechanical Institute, Moscow	D.C.	Fleming, Joseph Lucian	Ohio
Feeley, Larry Lufkin		Flickover, Sam John, Jr.	D.C.
Feller, Morris	Wash.	Flint, Dorothy Louise	M.
B.S. 1937, Columbia University	N.Y.	Flint, George Mark, Jr.	Mass.
Feran, John Bernard		A.B. 1941, Harvard University	
Ferrenbaum, Alan Arthur	D.C.	Flowers, John Francis	Ohio
Ferrenbaum, Jules	N.Y.	Flayd, Parker Wyeth	Va.
Ferrenbaum, Lawrence H.	N.Y.	Focht, Virginia Frances	D.C.
A.B. 1939, Brooklyn College	N.Y.	Focht, William Pauliney	La.
Feldman, Isaac		B.S. 1939, Louisiana State University	
B.S. 1941, The George Washington University	Va.	Fonda, Donald A.	Va.
Feldman, Rosetta A.		Fonduta, Edward Waldemar	Va.
B.S. 1935, Johns Hopkins University	Md.	Forness, Allen	N.Y.
A.M. 1940, The George Washington University		Forness, Mary Elizabeth	Miss.
		A.B. 1931, Mississippi State College for Women	
		A.M. 1939, Clark University	





[illegible]



Hamblin, Jack Arthur	Wis.	Healy, Arthur Paul	NJ
Hamburger, Joseph Max	MD	B.S. 1942, Seton Hall College	DC
Hamburger, Margaret S.	DC	Healy, Frank Newlands	Idaho
Hamilton, Joseph Benton	DC	Healy, Flora Elbe	DC
Hamilton, Lloyd William	Nebr.	B.S. 1941, University of Idaho	DC
Hamilton, Ray A.	Va.	Heavens, Catherine Virginia	DC
Hamm, Rosetta Hebenstreit	Va.	Heller, Karlina Johanna	NY
Hammer, Robert Eugene	Mch.	Hemphill, Thomas Alexander	NY
Hammersmith, William L.	Nev.	Heller, Edward Paul	NM
Hanley, Walter	N.Y.	Hemel, William Overton	NM
Hansen, Martin M.	Minn.	Hemer, Harold Scudder	
Hanna, Jane Edwards	DC	B.S. 1925, Kentucky Wesleyan	
Hansen, Walter Philip	SD	College	
Hansen, Martha Edward	N.J.	A.M. 1928, The George Washington	Me
Hansen, Evelyn Ann	DC	University	DC
Hansky, Walter	Calif.	Henn, Marion Ruth	DC
Harbner, James West	S.C.	Hendall, Raymond August	DC
Hardin, Dale Wayne	Ill.	Henne, Thomas Henry	Ida
Harding, Dorothy Mary	DC	Henneman, Lois Winifred	Nebr.
Hardy, Frank McNulty	W.V.	Henneman, Wallace Ren	
Hardy, William Henshock	Wash.	Hill, Sidney Nelson	DC
B.S. 1930, University of Washington		B.S. 1942, University of Nebraska	NY
Haringer, Albert M.	Ind.	Holter, Jacques Michael	DC
B.S. 1938, The George Washington		Holter, Janice	Me
University		Holmes, Mark Lee	
Harkey, William Theodore	DC	Holmes, Mary Ellen	Me
Harlan, Marjorie Elizabeth	MI	B.S. 1927, Temple University	
Harlin, M. Ray	Cal.	Holmes, Edward Cook	
Harlee, Ella Fulmore	DC	B.S. 1927, Mississippi State College	
A.B. 1918, Anglian University		A.M. 1931, The George Washington	Ida
A.M. 1919, Columbia University		University	Ida
Harmon, Ernest Henry	MD	Hoschek, James Wesley	Ida
Harness, Charles Leonard	Tex.	Hoschek, Edwin Okey	Ida
B.S. 1942, The George Washington		Hoschek, Marguerite Lucille	Ida
University		Hosmer, Harold Hubert	
Harris, Ross Marie	Okla.	B.S. 1925, Southwest Missouri State	
Harris, John Theodore	DC	Teachers College	
B.S. 1928, Syracuse University		A.M. 1931, University of Missouri	Ida
Harrison, Lester Frederick	DC	Hoskins, David Zane	Ida
Harris, Miles Fitzgerald	Va.	Hoskins, C. Patrick	Ida
Harris, Sylvia Rita	NY	Hoskins, Roger Aubrey	Ida
Harris, Walter Henry	Va.	A.B. 1927, University of Oregon	Ida
Harrison, H. L. Roberts	Minn.	Heery, Donald Lee	Ida
Harrison, Thomas P. Fisher	DC	Heery, Jack Wagoner, Jr.	Ida
Hart, Shirley Mae	DC	Hoskins, Frank North	Ida
A.B. 1942, University of Denver		Hoskins, Fred DeVolle	
Hart, Elaine Patricia	DC	Herseth, Helen May	
Hart, William Marion	Tex.	B.S. 1940, Wilson Teachers College	NY
B.S. 1940, Agricultural and Mechanical		Hess, Francis Lewis	Ida
College of Texas		Hess, Jack Robert	Ida
Harter, Glenn A. Mank	Calif.	Hess, Nancy	Ida
A.B. 1942, College of the Pacific		Heston, Frank Jefferson	Ida
Hartman, Donald Eugene	Pa.	Heston, Peter Herman	Ida
Hartstock, Frederick Burgess	DC	Hess, M. Fred Ruth	NY
Harvey, Dorothy Lucille	S.C.	Hess, Joseph Francis, II	
Hasbrouck, Paul A.	Iowa	Hess, Mary	NY
Hasell, Ann Clark	MD	A.B. 1942, Hunter College	Ida
Hess, Mary Virginia	Pa.	Hess, Robert Bernard	Ida
Hess, Douglas Barton	DC	Hess, Philip Graham	Ida
Hess, Norman Stewart	DC	Hester, James Gordon	Ida
A.B. 1941, The George Washington		A.F. 1925, Southwest Texas Teachers	Ida
University		College	Ida
Hess, David Camer	DC	Hess, William Joseph	Ida
Hess, Frank Donald Martin	Va.	Hess, Paul Vincent	Ida
Hesser, Evelyn Mary	DC	Hess, Thomas James	Ida
Hess, James Edwin	MD	Hess, Frank R.	Ida
Hess, Charles Russell, Jr.	MD	Hess, John R. Lee	Ida
Hewitt, Richard Glenn	Cal.	Hess, Madeline	Ida
Horton, Richard Irving	MI	A.B. 1937, Wellesley College	Ida
Hoy, William C.	Tex.	Hicks, Nelson Walter	Ida
Hoy, Raymond LeRoy	DC	Hicks, William Eugene	Ida
Hayward, J. Paul	Mass.	Hicks, William Louis	Ida
Hazor, Paul John	DC	Hicks, John Kirk	Ida
Headrick, Thomas W.	Idaho	Hicks, Arthur Lander	Ida
		Hill, Edward Crane	Ida

## 339

Hill, Irma Catherine	D.C.	Hill, Fred	Va.
Hill, John Lewis	D.C.	Hill, Albert, Alabama State College	Ala.
Hill, Walter Stanley, Jr.	Va.	Hill, William	Wash.
Hills, Elizabeth Leighton	D.C.	Hill, L. S. 1928, Emory University	GA.
Hill, Nancy Mary	D.C.	Hill, Frances William	S.D.
Hill, 1928, Mackay College	D.C.	Hill, Charles W.	N.Y.
Hill, 1929, Vanderbilt University		Hill, Charles L.	Iowa
Hill, Mary Louise	Va.	Hill, E. S. University of Iowa	D.C.
Hill, A. A. D.	Kans.	Hill, Robert Thomas	D.C.
Hill, John	Pa.	Hill, Mary A.	D.C.
Hill, J. L. Bernard	Mass.	Hill, George L. Jr.	Va.
Hill, 1924, The George Washington		Hill, George W.	Ark.
University		Hill, Frank	Mass.
Hill, Harry Morgan	D.C.	Hill, George Howard Jr.	Mass.
Hill, Melvin Francis	Va.	Hill, William	Ind.
Hill, William Henry	La.	Hill, William	N.C.
Hill, Carl L.	Pa.	Hill, 1927, University of North	
Hill, 1924, Catholic University of		Columbia	
America		Hill, Robert	Va.
Hillman, Herman	N.Y.	Hill, Robert W.	Okla.
Hill, David LeRoy	Va.	Hill, Albert, University of Tulsa	
Hill, William Martin	D.C.	Hill, William M.	I.C.
Hill, John A.	MI.	Hill, Robert E.	D.C.
Hill, Frederick Mose, Jr.	Va.	Hill, John Ames	D.C.
Hill, William Charles	Ala.	Hill, Melvin Forest	MI.
Hill, Barbara I.	Ill.	Hill, Melvin A.	D.C.
Hill, 1922, University of Wisconsin		Hill, Victor E.	Ind.
Hill, Alvin Kenneth	D.C.	Hill, Robert	D.C.
Hill, Orla Walter	D.C.	Hill, Robert, St. Mary's College	D.C.
Hill, Park Jr.	D.C.	Hill, Albert	Kans.
Hill, Stella Curry	MI.	Hill, Albert	Okla.
Hill, Marion Henry	N.J.	Hill, 1927, Georgia School	La.
Hill, 1924, New York University		Hill, Samuel R.	MI.
Hillock, William Phelps	D.C.	Hill, 1927, University of N. A.	
Hilman, Leon	N.Y.	Columbia	
Hilman, University of Rochester		Hillock, John Walter	MI.
Hilman, Margaret Anna	D.C.	Hillock, Charles	D.C.
Hilman, Lawrence Knight, Jr.	Va.	Hillock, Melvin Layton	La.
Hilman, Leon Earl	Pa.	Hillock, William	D.C.
Hilman, Grace, Jr.	MI.	Hillock, Robert F.	Okla.
Hilman, Ruth Jane	Mo.	Hillock, William Thomas	R.I.
Hilman, Robert Scott	W.Va.	Hillock, Leonard N.	I.C.
Hilman, Irene Reynolds	D.C.	Hillock, 1927, Iowa College	Mass.
Hilman, Irene L.	D.C.	Hillock, Robert Paul	Wash.
Hilman, Wisconsin State Teachers		Hillock, Robert	Calif.
College		Hillock, 1927, Fresno State College	
Hily, Frank Matias	Pa.	Hillock, Robert R.	N.Y.
Hily, R. H. Anita	D.C.	Hillock, Robert Edward	Va.
Hily, Roy Henry	D.C.		
Hily, Alexander I.	D.C.		
Hily, Charles R. Joseph	D.C.		
Hily, George William	W.Va.		
Hily, 1924, The George Washington	D.C.		
University			
Hily, Melvin Yuen	D.C.		
Hily, Charles R. Joseph	D.C.		
Hily, 1927, William's College of the			
University of North Carolina			
Hily, George Jerome	D.C.		
Hily, Emerson E.	Pa.		
Hily, 1927, Albright College			
Hily, Leah	Va.		
Hily, Marguerite Alice	Mass.		
Hily, James Eden	Ark.		
Hily, Rev. L. L.	Va.		
Hily, 1927, College of the City	N.Y.		
of New York			
Hily, Elaine Louise	Conn.		
Hily, Harold	N.Y.		
Hily, William	D.C.		
Hily, 1924, University of			
America			
Hily, Angela Marie	Ind.		

Jackel, Clayton Reed	Wis.	Johnston, Wesley Amos	N.Y.
Jackel, Elmer Lee	Utah	Johnstone, James Douglass	N.Y.
A.B. 1912, Brigham Young University		Jones, John Charles	Ohio
Jackel, Robert Eugene	Ind.	Jones, Edgar Meredith	D.C.
A.B. 1912, Indiana University		Jones, Edward Hamlin	Iowa
Jackel, William Henry	Pa.	A.B. 1930, University of Iowa	D.C.
Jackel, William Henry	Va.	Jones, Marguerite M. Dunbar	
Jackel, William Lawrence	D.C.	A.B. 1914, New York State College for Teachers	D.C.
Jacks, Henry William	D.C.	Jones, Ralph Harvard	D.C.
Jacks, John Yewell, Jr.	D.C.	Jones, Richard Turner	D.C.
A.B. 1909, Dickinson College		Jones, Richard D.	Va.
Jacks, William	D.C.	Jones, William A.	Md.
A.B. 1901, The George Washington University		Jones, William Walton	
Jacks, William Reed	D.C.	Jones, William Paul	
A.B. 1901, State College		A.B. 1902, The George Washington University	Pa.
Jacks, William	N.I.	Jones, William Bland	D.C.
A.B. 1901, Seton Hall College		Jones, William A. Jones	
Jacks, William W.	Va.	A.P. 1901, Villanova College	N.Y.
A.P. 1901, The George Washington University		A.M. 1901, Villanova University	Md.
Jacks, William T.	Md.	Jorney, Louis Marion	
A.B. 1901, Columbia College		B.S. 1900, University of Mississippi	
Jacks, William	Ill.		
A.B. 1901, University of Illinois			
Jacks, William	Va.		
Jacks, William	Md.		
A.B. 1901, Pennsylvania State Teachers College			
A.M. 1901, F.D. Jones, The George Washington University			
Jacks, William	Pa.		
A.B. 1901, Seton Hall University			
Jacks, William	Wash.		
A.B. 1901, University of Washington			
Jacks, William	N.Y.		
A.B. 1901, College of the City of New York			
Jacks, William S.	Ohio		
A.B. 1901, Ohio University			
Jacks, William Stafford	Ohio		
Jacks, William L.	D.C.		
Jacks, William L., Jr.	Iowa		
Jacks, William M.	W.Va.		
Jacks, William M.	D.C.		
Jacks, William M.	N.Y.		
Jacks, William M.	D.C.		
Jacks, William M.	D.C.		
Jacks, William M.	P.R.		
Jacks, William M.	D.C.		
A.B. 1901, Seton Hall College			
Jacks, William M.	Calif.		
Jacks, William M.	D.C.		
Jacks, William M.	S.D.		
A.B. 1901, B.S. 1901, University of South Dakota			
Jacks, William M.	N.M.		
Jacks, William M.	Ga.		
Jacks, William M.	Wis.		
Jacks, William M.	D.C.		
A.B. 1901, Mary Baldwin College			
Jacks, William M.	Wash.		
Jacks, William M.	D.C.		
Jacks, William M.	Ill.		
Jacks, William M.	Ky.		
A.B. 1901, Pennsylvania University			
Jacks, William M.	D.C.		
Jacks, William M.	D.C.		
Jacks, William M.	N.D.		
A.B. 1901, University of North Dakota			
Johnson, William Horace	Tex.		



# Students Registered

341

Kaufman, Joey B.S. 1939, The George Washington University	N.Y.	Kimball, Richard Hardwick Kimble, Harriet Louise A.B. 1942, The George Washington University	Mo. D.C.
Kaufman, Lillian Kavanaugh, James Francis Kay, Helena Virginia A.B. 1927, Southwest Texas Teachers College	Va. D.C. Tex.	Kimble, Seruch Titus, Jr. A.B. 1942, The George Washington University	D.C.
Kay, Ruth Elizabeth P.F.A. 1922, Ohio State University	Ohio	Kimpel, Ernest Blake A.B. 1941, Arkansas Agricultural and Mechanical College	Ark.
Kelch, Donald Edisworth Kean, John Harper Keating, Mary Frances Kellogg, Robert Samuel, Jr. Kelley, William Roy Kelley, Charles Allen Kelley, William Quincy Kelley, Arthur Robert Kelley, Eleanor Louise Kelley, Robert William Kelley, Mary Frances A.B. 1940, Mary Washington College	Md. D.C. D.C. D.C. Va. D.C. Md. D.C. Md. Va.	Kincard, James Lawcett Kinder, Edward Lewis, Jr. King, Donald King, Fred Lewis King, Alice A. King, Neta Marie A.B. 1925, West Virginia Wesleyan College	Va. D.C. D.C. D.C. Mass. W.Va.
Kelch, Evelyn Olive Kelley, Jack Charles A.B. 1938, Middlebury College Kelley, Howard William, Jr. Kelley, Claude Gerard Kelley, Elizabeth Booth Kelley, John, University of Chicago Kelley, Sam M. Kelley, John Kelley, Floyd Carl Kelley, James Leo A.B. 1941, University of California Kelley, Richard M. Kelley, Elizabeth Graham Kelley, Sylvia Leman A.B. 1941, Hunter College Kelley, Robert Thomas Kelley, William G. Kelley, Andrew Marie A.B. 1941, College of William and Mary	Md. Vt. D.C. Mass. Va. Mass. Wash. Calif.	King, Roy Herman, Jr. King, Royal C. Kingman, Allen Frederick, Jr. Kinsella, Lois A. Kintz, Ruth Kirk, Daniel Lee Kirk, Donald Angus A.B. 1940, University of Utah Kirkham, Geraldine Kirkham, Grant LL.B. 1941, The George Washington University	Ky. Calif. D.C. D.C. N.Y. D.C. Md. Va. Va. D.C.
Kelley, Robert M. Kelley, Elizabeth Graham Kelley, Sylvia Leman A.B. 1941, Hunter College Kelley, Robert Thomas Kelley, William G. Kelley, Andrew Marie A.B. 1941, College of William and Mary	N.Y. D.C. D.C. N.Y. D.C. Va.	Kirner, Juvanta Harper A.B. 1924, Wellesley College A.M. 1928, Rose Institute Kirsch, Jack Kirstein, Stanley W. A.B. 1940, The George Washington University	Ala. N.Y. D.C.
Kelley, Dorothy Bradford Kelley, Eileen Kelley, John Alexander A.B. 1942, The George Washington University	Va. Va. D.C.	Kiser, Joseph Marie Kiser, Robert G. Kiser, Sam Klasse, James Maxwell Klagge, Jules Klausner, William Earl Klavans, Stanley Kle, Jack A.B. 1942, The George Washington University	Ky. Md. D.C. Md. N.Y. D.C. D.C.
Kelkel, William Kennedy, Robert Allen A.B. 1941, Millsaps College Kenneth, Kenneth Kenneth, Bernice Alice Kennedy, John A. Kennedy, Leola Kennedy, Milton Udell Kennedy, Rosslyn Kennedy, Louis Joseph Kennedy, John Edwin Kennedy, Marion W. B.S. 1939, New York University	Md. Ala. D.C. Pa. Pa. N.Y. D.C. Tex. Md. D.C. N.Y.	Kline, Albert Kenneth B.S. 1938, St. Louis University Kline, James Stephen Moore P.S. 1938, Georgetown University Kline, Margaret Rose Kline, Stephen Howard Kline, Frank Carl Kline, William Howard John B.S. 1938, Pennsylvania State College Kline, Suzanne K. A.B. 1941, Smith College Kline, Maria Rex Kline, Louis LL.B. 1942, University of Maryland	D.C. D.C. Mass. D.C. Md. Pa. Va. Md. Md.
Kelch, Elsie Whittlesey A.B. 1941, The George Washington University	D.C.	Kline, David Kline, Virginia Mae Kline, Charles Clark B.S. 1940, Case College M.S. 1943, University of Wisconsin	D.C. Va. D.C. D.C.
Kiernan, Vera, Helen A.B. 1938, A.M. 1940, The George Washington University	D.C.	Knight, Raymond Lynn A.B. 1940, University of California	Calif.
Kika, Charles Louise Kilgore, William Drake, Jr. A.B. 1941, Emory and Henry College Kilpatrick, George A. Kim, Pearl Susuki	Pa. Va. Pa. D.C.	Knight, Robert Whitney	Fla.





[illegible]

Mack, James Paul	W. Va.	Martin, Richard Alfred	Miss.
Mack, Jane	Fla.	Martyn, Herbert, Jr.	Pa.
Mack, S. LeRoy	D.C.	B.S. 1939, Georgetown University	D.C.
B.S. 1942, Wilson Teachers College		Maslow, Albert Charles	
MacLean, Norman Spencer	Va.	Mason, Mary Ann	
MacRae, Malcolm Merritt	Calif.	A.B. 1921, Washington College	
Madden, Murdaugh Stuart	Va.	A.M. 1922, University of South	
A.B. 1942, The George Washington		Carolina	
University		Mason, William Thomas	
Madison, Hunter Wellington	D.C.	Mason, Kathryn Evelyn	
Madison, Virginia Lurline	Ark.	B.S. 1917, Virginia State Teachers	
Maerz, John Charles	Pa.	College	
Magee, Bernard	N.Y.	Mason, Robert H.	
Maggio, Sam L. Georges	France	Mason, Ralph Joseph	
Mazruder, Ruth Allene	W. Va.	Matthews, Mary A.	
Maguire, Joseph Patrick	Wash.	A.B. 1941, The George Washington	
B.S. 1941, University of Washington		University	
Mahler, Margaret	N.Y.	Mathis, Robert Alexander	
A.B. 1941, Mount Holyoke College		Mathis, Frank C.	
Maiden, Emma Jeanne	Va.	Matthews, Douglas Schuyler	
Mainhart, Howard Morsell	D.C.	Matthews, L. Everett	
Maiorana, Nathan Joseph	D.C.	Matthews, Robert Andrew, Jr.	
Makela, Benjamin Raphael	D.C.	Matthews, Helen Frances	
Makela, Priscilla Josephine	Mich.	Matthews, Helen Irene	
Makinson, James Thurston	Calif.	Matthews, Joseph Lee	
A.B. 1938, Stanford University		Matthews, Lane Curtis	
Mala, Elizabeth	N.Y.	Maxson, Herbert Maurice	
Maley, Robert Francis	D.C.	Maxwell, Michael Elizabeth	
B.S. 1942, Seton Hall College		B.S. 1942, Westminster College	
Malkin, William	Va.	Maxwell, Robert Fischer	
B.S. 1931, University of Minnesota		A.B. 1942, University of Pennsylvania	
Manchester, Morris Hyman	D.C.	Mayer, Charles Albert	
Mancus, Eugene Edward	D.C.	Mayer, Herbert	
Mandes, Tom John	D.C.	Mayer, Ernest Gail	
Manes, Milton	N.Y.	Mayer, John Preston	
B.S. 1937, College of the City of		McAfee, Leon B.	
New York		A.B. 1911, Brigham Young University	
Mankin, James Wallace	Va.	McAfee, William Bernard	
Mankin, Marjorie Ethel	Va.	McAfee, Daniel Arthur	
Mann, Donegan	D.C.	McBain, Mary Marshall	
Mann, Fletcher Cullen, Jr.	N.C.	B.S. 1940, The George Washington	
A.B. 1942, University of North		University	
Carolina		McCabe, James Joseph	
Mann, James Packard	D.C.	McCabe, William John	
Mann, Louise Edwards	D.C.	B.S. 1937, University of Scranton	
Mann, Shirley Louise	D.C.	McCallum, Margaret	
Manning, Anita B.	Tex.	McCallum, Margaret Duncan	
Manon, Ralph Waldo	Pa.	McCallum, William R.	
Manos, Bessie	D.C.	McCaun, Mary Ann	
Mantell, Leroy H.	N.Y.	A.B. 1944, The George Washington	
A.B. 1942, The George Washington		University	
University		McCaun, Raymond A.	
Manzke, Myrtle F.C.	Minn.	B.S. 1911, University of Missouri	
Marans, Nelson Samuel	Va.	McCarrahan, Samuel Patrick	
Marble, George H.	Mass.	McCarrahan, Francis John	
B.S. 1940, Michigan State College		McCarthy, Charles Henry, Jr.	
Marcum, Leocade Leighton	Mass.	McCarthy, Robert Joseph	
A.B. 1939, Tufts College		McCarthy, Thomas Price	
Markoff, Moses	D.C.	McCasland, Mary Virginia	
Markoff, Richard Paul Bolt	Mich.	B.S. 1937, Wilson Teachers College	
Markowitz, Irving	N.J.	McClatchey, Richard Thornton	
Marka, Betty Wright	Ky.	A.B. 1929, Illinois Wesleyan Uni-	
Markwood, James Anderson	D.C.	versity	
Marmer, Nancy Jane	D.C.	McClellan, Grant Samuel	
Marquardt, Eugene Anthony	Ill.	A.B. 1936, University of Nebraska	
Marquardt, Frank Richard	Ill.	A.M. 1937, London School of	
Marsh, H. Cameron, Jr.	D.C.	Economics	
A.B. 1941, The George Washington		McClure, Dora Florence	
University		McConnell, Frances Scott Simmons	
Marshman, Esther Weaver	D.C.	McCord, Howard Stevens, Jr.	
A.B. 1939, The George Washington		McCord, James Walter, Jr.	
University		McCoemick, Clifford Caldwell, Jr.	
Martel, Stuart Henry	Wash.	McCown, Joseph W.	
Martin, Daniel Walter	D.C.	McCoy, David Sidmon	
Martin, John B., Jr.	Tex.		



McClen, John Wood		McLer, John Edward	N Y
B.S. 1940, Michigan State College		AB 1942, The George Washington	
McCubbin, John C.	D C	University	
McCormick, L. E. 1942, Beth	Pa	McLer, Frances Margaret	Kans
McCormick, Robert William	D C	McLer, Helen Lawrence	D C
McCormick, Thomas Leroy	Iowa	McLer, John Nathan	N Y
McCormick, James Green	N Y	McLer, Anna Alice Anten	D C
AB 1941, University of Buffalo		AB 1942, The George Washington	
McDonnell, Jean Marie	D C	University	
McDonnell, Robert I.	Ill	McLer, Paul Eugene	Kans
McDonnell, Ronald Franklin	M S	McLer, Arthur Bruce	Ill
McDonnell, Eugene Ann	D C	McLer, Henry	N J
McDonnell, Carol Patricia	D C	McLer, James W.	W Va
McDonnell, Louis Scott	MI	McLer, Edward Gust	Idaho
McDonnell, Maria Clyde	O Ia	AB 1944, Stanford University	
McDonnell, Paul Ler	Tenn	McLer, Stephen Frank	Md
McDonnell, Edward Clifford	N I	AB 1941, A.M. 1958, University	
McDonnell, William John	N I	of California	
McDonnell, Thomas	D C	McLer, Paul	N Y
McDonnell, James Francis	M S	McLer, Andrew Gadel	D C
McDonnell, Nelson Arthur	N Y	McLer, Henry K.	W Va
McDonnell, John Milton	N Y	McLer, Mary Beth	Ind
McDonnell, Robert Arthur	N Y	McLer, Allen Royen	W Va
McDonnell, Ernest Victor, Jr.	Wash.	McLer, Mary M. Roney	N Y
B.S. 1942, Washington State College		McLer, Mary Marie	Pa
McDonnell, Robert L.	Ind	McLer, Robert H. Hart, Jr.	D C
AB 1942, Lafayette University		McLer, Robert G.	Md
McDonnell, William Thomas	S C	McLer, Frederick Peter	S D
AB 1942, A.M. 1926, University		McLer, Henry	D C
of South Carolina		McLer, Henry	N Y
McDonnell, Paul Woodward	Va	McLer, Elizabeth Dickson	N C
McDonnell, Thomas	Ill	B.S. 1941, Mary Washington College	
McDonnell, William R. Abine	N C	McLer, Henry Albert	N Y
McDonnell, Henry Frederick	D C	McLer, Peter Elizabeth	D C
McDonnell, Robert L.	Ky	McLer, Mary Susan	Calif
AB 1941, Mississippi College		McLer, Roy Harden	Pa
McDonnell, Paul of Warren	Calif	McLer, David Raymond	Va
B.S. 1942, University of Notre Dame		B.S. 1945, University of Virginia	
McDonnell, Theophilus	Calif	McLer, David Lee	W Va
B.S. 1942, University of Arizona		McLer, Joseph Jean	D C
McDonnell, Eugene Francis	W Va	McLer, James Henry	Idaho
McDonnell, Louis Hale		B.S. 1945, University of Idaho	
McDonnell, Thomas Henry	Va	McLer, Elizabeth Order	D C
AB 1942, University of Illinois		McLer, Ernest Ray	Tex
McDonnell, William Walter	D C	McLer, Paul L.	I C
McDonnell, Gus E. Downs	Iowa	McLer, William Wells	D C
McDonnell, John G. Gabel	D C	McLer, Frank Nelson, Jr.	D C
McDonnell, Martin Lee	Md	McLer, Henry John	N Y
McDonnell, Harry Price	D C	McLer, Lella Jean	D C
McDonnell, Ann Rachel	N I	McLer, Max Elmer	Okla
McDonnell, B. J. Wood	Tex	McLer, Mary Elizabeth	D C
AB 1940, Texas Technological Col.		McLer, John	D C
McDonnell, Harold Paul, Jr.	W Va	McLer, R. G.	N Y
McDonnell, Louis	D C	McLer, R. H.	D C
McDonnell, Mary Ella Burkett	Ala	McLer, Spencer Kelsey	Conn.
McDonnell, Robert Keith	D C	AB 1942, Miami University	
McDonnell, Thomas R. P.	Ill	McLer, Joseph Allen	D C
AB 1942, Illinois College		AB 1942, Trinity College	
McDonnell, Ma. James Shaver	D C	U. B. 1941, Yale University	
McDonnell, Charles Alexander, Jr.	Md	McLer, Warren III	D C
McDonnell, Arthur Edward	Va	McLer, Theodore Te. Brooke	N J
McDonnell, Ethel	Okla	AB 1945, University of Chicago	
B.S. 1947, Oklahoma State Teachers		McLer, Paul	Md
College		McLer, Valerine Moore	Va
McDonnell, Antonio Samuel, Jr.	P R	McLer, Isabelle LaPrade	Md
McDonnell, David T. Smith	Va	McLer, Margaret Ruth	D C
McDonnell, William Hamilton	Va	McLer, James Berrell	D C
McDonnell, Maurice Clyde	Pa	McLer, Albert Albert	D C
McDonnell, Ella	Pa	AB 1940, University of New Mexico	
McDonnell, Charlson Iver	Md	McLer, Karl Richard	W Va
McDonnell, Barbara Alaina	D C	McLer, William S.	D C
		McLer, John Vincent	Pa
		Misner, Robert David	D C



Mitchell, Edwin C. B.S. 1930, University of Wyoming	Wyo	Mullaney, John Francis Mullen, James Kane B.S. 1941, University of Idaho	Idaho
Mitchell, Suzanne	W Va	Mullinix, E. Edwina	Idaho
Mizota, Robert Frank	Neb	Munch, Neil Ernest	Idaho
Moberg, Marcel Sisson	D.C.	Munden, Kenneth White	Idaho
Moberg, Lucille Norma	Idaho	Munoz, Lee Luis	Idaho
A.B. 1928, Reed College		Munro, Alasdair Ian	Idaho
Mohr, Linda Angela	D.C.	Munro, Catherine Chenoweth	Idaho
Mohr, Barbara	Idaho	Munro, Helen Baird	Idaho
Mohr, Kayne P.	Utah	Munsil, Lloyd M.	Idaho
Mohr, Marion Mae	Idaho	Murayama, Sotemi	Idaho
Mohr, Eduardo Luis	Nicaragua	Murphy, Christopher Joseph, Jr. Murphy, Donald Vincent A.B. 1918, University of Iowa	Idaho
I.I.D. 1978, Central University of Nicaragua		Murphy, Jar	Idaho
Moore, A. Paulette	Idaho	Murphy, John Thomas	Idaho
Moore, Mary, John Palmer	D.C.	Murphy, Joseph Alexander	Idaho
Moore, Robert Ruce	Idaho	Murphy, Julian George A.B. 1942, University of Maryland	Idaho
Moore, Eugene Morton	Idaho	Murphy, Louis Sutcliffe	Idaho
Moore, George Carlton, Jr.	Idaho	Murray, Michael James	Idaho
A.B. 1941, University of Maryland		Murray, Robert Warren	Idaho
Moore, Margot Fansler	D.C.	Myer, William H. B.S. 1938, Haverford College	Idaho
Moore, Mary Almeda	Idaho	A.M. 1930, New York University	Idaho
Moore, N. Elizabeth	D.C.	Myklebust, Roy John A.B. 1940, Montana State University	Idaho
Moore, Richard Henry	Idaho	Mykowski, Walter Joseph	Idaho
A.B. 1930, Bowdoin College			Idaho
Moore, Ronald Worth	D.C.		Idaho
Moore, Walter Harvey, Jr.	Idaho		Idaho
A.B. 1937, Brigham Young University			Idaho
Moore, Warren Horace	D.C.		Idaho
Morales, Maria Caridad	D.C.		Idaho
Moran, Francis Michael	D.C.		Idaho
Morell, William Nelson, Jr.	Idaho		Idaho
Morgan, Alice Susan	D.C.		Idaho
B.S. 1948, University of Maryland			Idaho
Morgan, Anne	D.C.		Idaho
Morgan, Blanche Butler	D.C.		Idaho
Morgan, Sam A.	Idaho		Idaho
Morgan, Helen	Idaho		Idaho
Morgan, Herman	Idaho		Idaho
Morgan, Philip	Idaho		Idaho
B.S. 1949, Dickinson College			Idaho
Morris, John Robert	Idaho		Idaho
Morris, Robert Hughes	Idaho		Idaho
A.B. 1941, Miami University			Idaho
Morris, George A.	Idaho		Idaho
Morris, Mary Gloria	Idaho		Idaho
Morris, Robert Lillard	Idaho		Idaho
B.S. 1948, Stephen F. Austin State Teachers College			Idaho
Morse, Alice Sigworth	D.C.		Idaho
B.Lit. 1910, Emerson College			Idaho
A.M. 1940, University of New Hampshire			Idaho
Morse, Anne L.	Mass		Idaho
Moser, Roger W., Jr.	D.C.		Idaho
Mostow, Wolfe	N.Y.		Idaho
B.S. 1932, College of the City of New York			Idaho
M.S. 1931, University of Chicago			Idaho
Mote, F. Wade	Idaho		Idaho
Mott, Howard Otis	Idaho		Idaho
A.B. 1941, Union College			Idaho
Moulton, Barbara	D.C.		Idaho
A.B. 1937, University of Chicago			Idaho
A.M. 1940, The George Washington University			Idaho
Mowery, Jane Ann	Idaho		Idaho
Moximo, Alice	Idaho		Idaho
Moyer, James Edward	Idaho		Idaho
Mueller, Jean Harden	Idaho		Idaho
Muggley, Reginald Franklin	Idaho		Idaho
Muilenburg, Robert A.	Idaho		Idaho
Muir, Neil	Idaho		Idaho
B.S. 1941, University of Michigan			Idaho

Nielson, Ivan Kelly	Va	Olds, Jessica	Olds
B.S. 1949, The George Washington University		Ost, Walter Martin	Md
Nienhoe, Florence J.	N.Y.	Ostrowski, Nelson	N.Y.
Nichols, D. D. Dimeck	Va	Ostrowski, Bernard Howard	Md
Nimmo, Isadore	Pa	Ott, James	Calif
Nimmo, Isadore K. Gordon	Calif	Ott, William Joseph	Calif
Nixon, James G. H.	Va	Ott, Leo	N.Y.
Nix, Robert W. Frank	D.C.	Ott, Jesse Bowden	N.C.
Nix, Vincent Kathryn	D.C.	Ott, Betty Dorothy	D.C.
Nix, Jack H.	D.C.	Ott, Helen Vincent	Wyo
Nix, Leon Richard	Ala	Ott, Joseph Stanley	Va
Nix, Roy Hub	D.C.	Ott, Robert Keith	Kans
AB 1947, Winter's College of the University of North Carolina			
Nordberg, Bernard Lee	Kans	Pace, Stephen, Jr.	Calif
Norris, Ronald Frederick	Tex	Pace, Joseph Robert	Va
AB 1941, University of Texas		Pace, William Lee	Va
North, Max Howard	Ohio	AB 1942, The George Washington University	
North, Ohio State University		Packer, Kenneth Eugenia	D.C.
Norton, Hugh Stephen	Nev	Packer, Matthew Joseph	Calif
Norton, Maurice Ed	D.C.	Packer, Frank Carl	N.Y.
Norton, Milton Mackett	S.C.	Packer, Edward Lawrence	D.C.
AB 1946, Presbyterian College		Packer, Irene Margaret	Wyo
Norton, Wayne Roy	Ill.	Packer, Margaret Mary	Wyo
Norton, Bernard	N.Y.	AB 1947, Trinity College	
Norton, J. Francis W.	Mass	Packer, Joseph Mary	Va
B.S. 1947, Mississippi State College		Packer, Richard Henry	D.C.
Noss, Oscar Fritz, Jr.	N.J.	Packer, William Carter	Md
Nolan, John Alfred	N.Y.	Packer, Charles Kenneth	Mass
Northern, Mary Mariner	D.C.	Packer, Norman	N.I.
AB 1942, The George Washington University		AB 1947, New York University	
		Packer, John M.	D.C.
		Packer, LeRoy Andrew	Calif
		Packer, Louis Walter	Calif
		Packer, Lisa Murray	Calif
		Packer, Catherine Bowman	Calif
		Packer, Tim Rich	Calif
		Packer, Victor Boring	Calif
		Packer, Walter	N.Y.
		Packer, Anne Edward	D.C.
		Packer, Frances May	Calif
		Packer, Joseph	Calif
		Packer, Kenneth Lawrence	Wyo
		Packer, Albert	N.I.
		Packer, Helen	Calif
		Packer, Paul	Calif
		Packer, Thomas Augusta	D.C.
		Packer, T. John	N.C.
		AB 1948, Y. S. University	
		Packer, Anne Rose	Va
		Packer, Thomas M. Kelly	N.Y.
		B.S. 1949, Bucknell Univ.	
		Packer, William Eugene H.	Calif
		Packer, Henry Thomas, Jr.	D.C.
		AB 1947, New York University	
		Packer, Frank William	Calif
		Packer, George	Va
		Packer, Mary Walker	N.I.
		AB 1947, New Jersey State Teachers College	
		Packer, Robert Eugene	Calif
		Packer, Robert James	Calif
		Packer, James Augustus Jr.	Calif
		Packer, Carl J.	Va
		H.B. 1947, University of Idaho	
		Packer, John	D.C.
		AB 1947, University of Pennsylvania	
		Packer, Ed Weiss	D.C.
		Packer, Morris	N.Y.
		AB 1947, The George Washington University	
Ondey, Loretta Mary	Calif		
Ondey, Loretta	Calif		
Ondey, Walter Joseph	Mass		
Ondey, Leonard S.	N.Y.		
B.S. 1945, University of Illinois			
O'Donnell, James Robert	Va		
O'Donnell, James	Mass		
O'Donnell, William Everett	S.D.		
O'Donnell, George L. Foster	D.C.		
O'Donnell, Harry James	D.C.		
O'Donnell, John David	Mass		
O'Donnell, Barbara Annex	Calif		
O'Donnell, John James	Calif		
O'Donnell, Lawrence	D.C.		
O'Donnell, William Thomas	Calif		
O'Donnell, Joseph Patrick	D.C.		
O'Donnell, Louis	N.Y.		
O'Donnell, Harry Edmund, Jr.	D.C.		
O'Donnell, Norman E.	D.C.		
O'Donnell, Roger William	Md		
O'Donnell, Catherine Elizabeth	S.D.		
O'Donnell, Bernard	N.Y.		
O'Donnell, Joseph William	D.C.		
O'Donnell, Albert	Va		
AB 1944, St. Joseph's College			
O'Donnell, George R.	Mass		
O'Donnell, John	N.I.		
O'Donnell, John	Va		
O'Donnell, George	Calif		
O'Donnell, Lee M.	Calif		
O'Donnell, Edward Russell	Calif		
O'Donnell, Richard Kent	D.C.		
O'Donnell, Samuel	Mich		
O'Donnell, Robert Davison	N.I.		

[illegible]



Rabkin, Boris	N.Y.	Reiser, Raymond Anton	Va.
A.B. 1939, New York University		Reiss, Betty E.	N.J.
Radkowsky, Alvin	N.J.	Reitman, James Stuart	N.I.
B.S. 1935, College of the City of New York		B.S. 1938, New York University	Va.
A.M. 1941, The George Washington University		Remmlin, Madeline Kinter	
Radner, Mildred Elizabeth	Va.	Ph.B. 1929, Chicago University	
Rae, J. Thomas	D.C.	A.M. 1932, Columbia University	
Rae, Lois Estelle	Va.	Ph.D. 1933, The Sorbonne	
Raise, William Lawrence	N.Y.	Renne, Nancy Louise	Pa.
A.B. 1929, College of the City of New York		Rentschler, Bertha F.	Iowa
Raman, Charles McCully	Mo.	Resnick, Solomon	
Ramus, Wendell Jefferson	Ga.	B.S. 1939, Yale University	D.C.
Rap, Leo, Jr., Nelson	Md.	Rice, William L. Turner	Ill.
Rasmussen, Ronald Snedrick	Tex.	Rex, Harold Morgan	Fla.
Raney, Alice Virginia	Va.	Reynolds, Fletcher P., Jr.	D.C.
Ratus, Sadie Shirley	Calif.	Reynolds, Joan A.	Va.
Ralph, Marie Louise	D.C.	Reynolds, Miriam Agnes	R.I.
Rambeck, Oscar Johannes	Wash.	Rezendes, Delinda Constance	Md.
Raney, Julia A.	Mass.	Rhoads, Mary Evelyn	
Rama, August	N.J.	A.B. 1922, Hood College	Va.
Raney, Margaret Ann	Tenn.	Rice, David Lucian	Ill.
Raney, Alex I.	Tex.	Rice, Harold Lee	D.C.
Randall, Clifford Merle	Neb.	Rich, Frank Hart	N.Y.
Randall, William E.	Ohio	Rich, Robert Edward	
Randall, Elizabeth Grace	Tex.	B.S. 1935, University of Buffalo	
Randall, J. William	Idaho	Rich, William E.	
A.B. 1941, The George Washington University		A.B. 1931, Emory and Henry College	Ill.
Rapier, Stanley	N.Y.	Richards, Carl Adams	Wash.
Rapley, J. M.	D.C.	Richardson, John William	
B.S. 1941, College of the City of New York		B.S. 1941, University of Wyoming	D.C.
Rapley, Paul E.	N.Y.	Richardson, Paul David	W.Va.
B.S. 1942, College of the City of New York		Richardson, Robert Marriam	Idaho
Rasch, Robert Adrian	Okla.	Riches, Clay E.	D.C.
Rash, Marian Kayla	Ill.	Richey, Alice M.	Ill.
A.B. 1937, University of Texas		Richter, William Henry	D.C.
A.M. 1941, University of Montana		Ricklis, Henry	D.C.
A.B. 1941, The George Washington University		Riddel, Grace Ethel	D.C.
Ratner, John August	Tex.	Riddle, Edward Maurice	Tc.
Ratz, John M. Mason	D.C.	Ridgeway, Jesse A.	D.C.
Ratz, John Mason	Ind.	Riely, Ralph Lee	Va.
Ratz, Robert Louis	Calif.	Riley, Alfred Buford	D.C.
Ratz, Robert Louis	N.Y.	Riley, Lewis Alfred, Jr.	Pa.
Ratz, Robert Louis	D.C.	Rinehart, Albert Walton	D.C.
Ratz, Robert Louis		Ringel, Herbert Robert	N.Y.
Ratz, Robert Louis		Ringwald, Gustav A.	N.Y.
Ratz, Robert Louis		B.S. 1930, Gettysburg College	
Ratz, Robert Louis		A.M. 1936, Columbia University	
Ratz, Robert Louis		Rinker, Royden Corrington	Va.
Ratz, Robert Louis		B.S. 1939, The George Washington University	
Ratz, Robert Louis		Riordan, George Thomas	Conn.
Ratz, Robert Louis		Riordan, John Joseph	Mass.
Ratz, Robert Louis		A.B. 1936, Boston College	
Ratz, Robert Louis		Ripley, Nelson Millard	N.Y.
Ratz, Robert Louis		Risley, William Linton, Jr.	N.J.
Ratz, Robert Louis		Ritter, Julius Charles	
Ratz, Robert Louis		Ritter, Charles Robert	
Ratz, Robert Louis		A.B. 1942, The George Washington University	
Ratz, Robert Louis		Rizer, Ralph Burke	D.C.
Ratz, Robert Louis		Rizkin, Arthur	Mass.
Ratz, Robert Louis		A.B. 1939, Boston University	
Ratz, Robert Louis		Robbins, David	D.C.
Ratz, Robert Louis		Robbins, Charles Henry	D.C.
Ratz, Robert Louis		B.C.S. 1937, University of South Carolina	
Ratz, Robert Louis		Roberts, Richard Mansfield	Va.
Ratz, Robert Louis		Robertson, William Smith	D.C.
Ratz, Robert Louis		Robey, Edgar Alderson	D.C.
Ratz, Robert Louis		Robins, Ellis	Md.
Ratz, Robert Louis		Robinson, John Wesley, Jr.	Va.
Ratz, Robert Louis		Robinson, Joseph Benedict	N.Y.
Ratz, Robert Louis		Robinson, Velma Mae	D.C.
Ratz, Robert Louis		Robison, Fred Allen	Calif.



Roderick, Morgan David	D.C.	S	By
B.S. in M.E. 1939, Columbia University		Savva, Wilbur Wilson, Jr.	
Rodman, Roy Frank	Ill.	A.B. 1914, Murray State Teachers College	A
Rosen, Harold R. D.	D.C.	Savva, Barbara Ann	N.Y.
B.S. 1921, Clarkson College of Technology		Savva, David R. Scott	N.Y.
Rogers, Carl Wesley	Tenn.	Savva, James C. Smith	Pa.
Rogers, John Lenzie, Jr.	D.C.	Savva, George Louis Lull	Pa.
Rogers, William Gene	Iowa	Savva, J. M. Smith	N.Y.
Rogers, Mary Mary Patricia	D.C.	Savva, Ernest Frederick	N.Y.
Rogers, Kenneth Morris	Ill.	Savva, Fred Perry	N.Y.
Roscoe, Albert	Pa.	B.S. 1928, Russell Sage College	N.Y.
Roscoe, James John	D.C.	Savva, Robert Lee	N.Y.
Roscoe, John Marshall	Pa.	A.B. 1941, The George Washington University	N.Y.
Roscoe, Marion	D.C.	Savva, J. B. Smith	N.Y.
Roscoe, Ivan Elmer, Jr.	D.C.	Savva, George A.	N.Y.
Ross, Rafael	Panama	Savva, Mary Jane	N.Y.
Rose, Frank Singleton	N.Y.	A.B. 1941, Washington College	N.Y.
A.B. 1942, Syracuse University		Savva, George L. Smith	N.Y.
Rose, Herbert Edgar	D.C.	Savva, George L. Smith	N.Y.
Rose, Jerome Victor	D.C.	Savva, George L. Smith	N.Y.
Rose, Marilyn Eleanor	Va.	Savva, George L. Smith	N.Y.
Rosenbaum, Hilda Stein	D.C.	Savva, George L. Smith	N.Y.
Rosenblatt, William Allen	Tenn.	A.B. 1942, The George Washington University	N.Y.
Rosenfeld, Arthur Fred	N.J.	Savva, George L. Smith	N.Y.
B.S. 1934, Lafayette College		Savva, George L. Smith	N.Y.
Rosenfeld, Edward Morris	D.C.	Savva, George L. Smith	N.Y.
B.Arch. 1928, University of Pennsylvania		Savva, George L. Smith	N.Y.
Ross, Ann	D.C.	Savva, George L. Smith	N.Y.
Ross, Lucy LaVonne	N.Y.	Savva, George L. Smith	N.Y.
Ross, Nathan August	N.Y.	Savva, George L. Smith	N.Y.
Rothberg, Eleanor	N.Y.	Savva, George L. Smith	N.Y.
Rothberg, Louis	N.Y.	Savva, George L. Smith	N.Y.
Rothberg, Helen Tefft	N.Y.	Savva, George L. Smith	N.Y.
A.B. 1932, University of Rochester		Savva, George L. Smith	N.Y.
Rothberg, John Blaine	Pa.	Savva, George L. Smith	N.Y.
A.B. 1944, The George Washington University		Savva, George L. Smith	N.Y.
Rothberg, Margaret	Md.	Savva, George L. Smith	N.Y.
Rothberg, Helen Therese	N.Y.	Savva, George L. Smith	N.Y.
A.B. 1942, College of St. Elizabeth		Savva, George L. Smith	N.Y.
Rowan, Mack	N.Y.	Savva, George L. Smith	N.Y.
Rowland, Jesse	Fla.	Savva, George L. Smith	N.Y.
B.A. 1943, Syracuse University		Savva, George L. Smith	N.Y.
Rowe, Clifford Alton	Ill.	Savva, George L. Smith	N.Y.
Roy, David	N.Y.	Savva, George L. Smith	N.Y.
A.B. 1943, Brooklyn College		Savva, George L. Smith	N.Y.
Roy, Ralph Lafayette	Mo.	Savva, George L. Smith	N.Y.
A.B. 1943, Piedmont College		Savva, George L. Smith	N.Y.
Royce, Ruth Savory	Va.	Savva, George L. Smith	N.Y.
A.B. 1928, College of William and Mary		Savva, George L. Smith	N.Y.
Ruble, Helen Valeska	Miss.	Savva, George L. Smith	N.Y.
Rubens, Frances Norton	D.C.	Savva, George L. Smith	N.Y.
Rubin, Joseph Vincent	D.C.	Savva, George L. Smith	N.Y.
Rubin, Ruth Catherine	Conn.	Savva, George L. Smith	N.Y.
A.B. 1941, Connecticut College		Savva, George L. Smith	N.Y.
Russ, William Joseph	N.Y.	Savva, George L. Smith	N.Y.
B.S. 1942, State Hall College		Savva, George L. Smith	N.Y.
Russell, Myrtle Ellen	N.D.	Savva, George L. Smith	N.Y.
Russell, Stephen Earl	Md.	Savva, George L. Smith	N.Y.
Rutherford, David J. Johnson	Mass.	Savva, George L. Smith	N.Y.
Rizak, Ephraim	S.D.	Savva, George L. Smith	N.Y.
Ryan, Harold William	Ill.	Savva, George L. Smith	N.Y.
Ryan, Jack Earl	Ind.	Savva, George L. Smith	N.Y.
Ryan, Joseph Francis, Jr.	Va.	Savva, George L. Smith	N.Y.
Ryan, Katherine Ann	N.Y.	Savva, George L. Smith	N.Y.
Ryan, Patricia Geary	D.C.	Savva, George L. Smith	N.Y.
Rybolt, Cleta Glenn	Ill.	Savva, George L. Smith	N.Y.
Rylee, Willes Yeates	Miss.	Savva, George L. Smith	N.Y.
B.S. 1930, American University		Savva, George L. Smith	N.Y.

[illegible]

Smasal, Oswald Michael	Wis.	Sparkman, Joseph Ben, Jr.	Ta.
Smiles, Stanley Joseph	Calif.	B.S. in M.E. 1942, Rice Institute	Pa.
A.B. 1941, University of California		Spatz, Raymond Lester	N.Y.
Smiley, William Todd, Jr.	D.C.	B.S. 1941, Albright College	D.C.
Smith, Arthur Gust	Iowa	Spaziner, Joseph J.	Ill.
Smith, Arthur Jay	D.C.	Speaker, Richard B.	
Smith, Ernest Quincy	D.C.	Spear, Bernice Clarre	Okla.
Smith, C. Reed	Utah	B.S. 1939, Central Y.M.C.A. College	D.C.
Smith, Dorothy Mae	Kans.	Speer, John Bristol	Oreg.
Smith, Evelyn H.H.	Ga.	Spencer, Edward Guerrant	N.C.
A.B. 1948, University of Georgia		Spencer, George Olin	D.C.
Smith, George Hursley	Va.	Spencer, Warren Frank	D.C.
A.B. 1941, The George Washington		Spero, Abraham	Tex.
University		Spiker, Janet Nevian	
Smith, Gordon Murdoch	D.C.	Spiller, Lou Nora	Utah
A.B. 1941, The George Washington		A.B. 1933, University of Texas	D.C.
University		Spilsbury, Calvin C.	S.C.
Smith, Grace Horsley	D.C.	Spindel, Sidney Simon	
Smith, J. Paul	D.C.	Spitz, Arthur Herman	N.Y.
Smith, John Daniel	D.C.	B.S. 1941, University of South Carolina	Pa.
Smith, Joseph Francis	N.Y.	Spivack, Herman M.	Pa.
B.S. 1941, Seton Hall College		Spotts, George R.	
Smith, Lillian Nicholson	D.C.	Spray, Paul	
B.S. 1940, Wilson Teachers College		B.S. 1941, University of Pittsburgh	Pa.
Smith, Margaret	D.C.	Sprehn, G. Warren	N.Y.
Smith, Marilla Horton	N.Y.	Sprintzin, Arthur	Ohio
A.B. 1930, New York State College		Stacy, Stanley Edward	D.C.
for Teachers		Staffield, Raymond Lloyd	N.J.
Smith, Mable	Pa.	Stafford, John Coulter	
Smith, Nora Oberlase	N.H.	Stage, Harry Conklin	Va.
Smith, O. G. Fulton	Va.	B.S. 1936, Louisiana State University	D.C.
Smith, Frances M.	Md.	Stambaugh, Anna May	Md.
Smith, Roy H. Cook	D.C.	Stambler, Arthur	S.D.
Smith, Robert New	Idaho	Stanback, Josephine Walker	Maine
B.S. 1938, University of Idaho		Stangoor, Arnold George Edwin	
Smith, R. F. Cook	D.C.	Stanley, Laura M.	Pa.
Smith, Virginia Saxton	Md.	A.B. 1922, Colby College	
Smith, W. Lee	D.C.	Stanley, Robert Godlewski	Va.
Smith, Wiles Croom, Jr.	Va.	A.B. 1939, University of Pennsylvania	D.C.
Smither, Sam Lee	Md.	Stark, Carl E.	Pa.
Smither, Charles Ketting	T.H.	Stark, Harry Newman	D.C.
Smither, Frances Mary	Va.	Stark, Mary Anna	D.C.
Smither, Herbert Holmes	D.C.	Stark, Paul	D.C.
Smither, Kenneth Bruce	Va.	Steele, Sally Lois	
Smither, Robert Marshall	Md.	A.B. 1940, The George Washington	Kans.
B.S. 1940, The George Washington		University	N.Y.
University		Steere, Betty Lu	Wis.
Smither, Helen Louise	Md.	Steers, Dorothy Mabel	D.C.
Smither, John Daniel	Pa.	Steffen, Lloyd John	D.C.
Smither, Martha Frances	Va.	Steffens, Jerome	D.C.
Smither, Paul J.	Md.	Steffey, Billie Jean	
Smither, Roxana	Kans.	Stein, Bettie R.	D.C.
A.B. 1938, Western College		B.S. 1940, Ohio State University	D.C.
A.M. 1941, University of Kansas		Stein, Edna Linborg	D.C.
Slater, Abraham Bennett	Pa.	Stein, Edna	Va.
A.B. 1941, University of Pennsylvania		Steinberg, Alvin J.	D.C.
Sohler, Julia Virginia	Oreg.	Stemmer, Majet Stenshill	Pa.
Sokol, Leonard	D.C.	Steinberg, Morton Robert	Mo.
Solomon, Edwin Morton	D.C.	Steines, Esther Bertha	N.Y.
Solow, Max	D.C.	Steines, Verna J.	D.C.
Somers, Elizabeth Rose	D.C.	Steinsapir, Seymour H.	D.C.
Somerville, Helen	Ill.	Stell, William Marlin	Ohio
Somerville, Arthur Theodore	Pa.	Stemmel, Gertrude Morris	Pa.
Sorens, A. Benjamin	N.Y.	Stephens, Grace Harold	Va.
Sorensen, Robert Oscar	Wash.	Stephens, Milton Her. Jenson	Pa.
Sorrell, Ida Davis	Va.	Stephens, Robert William	Man.
Sorrows, Howard Earle	Tex.	Stephens, Earl Donald	D.C.
A.B. 1941, Baylor University		Stephens, Jean Terry	N.Y.
Sosner, Chester Henry, Jr.	N.H.	Sterling, Margaret Anne	Calif.
A.B. 1941, University of New Hamp-		Sternfeld, William A.	D.C.
shire		Stetson, Richard	
Southwell, Florence Colleen	Ind.	Stevenson, Noel C.	
Southwick, Paul	Md.	Stevenson, Octavia Sykes	
Sowell, Rae Spears	Md.		



### Students Registered

353

[illegible]





### Students Registered

355

[illegible]

[illegible]



# STUDENTS REGISTERED

1942-43

## FALL AND WINTER TERMS

Aamodt, Margaret, C	A		Adler, David	Va.
Aarons, Louis, Jr.			Adler, Melvin Howard	Okla.
B.S. 1933, University of Chicago	Minn.		Adler, Michael H. B.	D.C.
Abadie, Jacques, Jr.	Ga.		Adlof, Richard Ernest, Jr.	Tex.
B.A. 1929, Tulane University of Louisiana	La.		Agard, Robert Mason	Mass.
M.A. 1915, Catholic University of America			A.B. 1910, Wesleyan University	
Abbe, Janet Louise			B.S. 1940, Columbia University	
Abbot, Mary Rose			Ahlum, Robert Paul	Pa.
Abbott, Elvina Marie			B.S. 1942, Temple University	
Abel, Paul Y.			Ahrens, Gerd Hans	Md.
Abernethy, Jefferson Hyde, Jr.			Aikman, Edward	D.C.
Abernethy, Richard Arthur			Ainley, Helen Marie	Md.
Abraham, George			Ainsworth, Charles Donald	Ill.
B.S. 1940, Brown University			A.B. 1942, University of Illinois	
M.S. 1942, Harvard University			A.B. 1921, University of Alabama	Ala.
Abraham, Ramsey Fortaine			Auright, H. Aquila	D.C.
Abraham, Bernard Bradshaw			Aker, Donald Charles	D.C.
B.S. in C.E. 1935, C.E. 1940, The Citadel			Aker, Zubeyir	D.C.
Abraham, Bettrice			Akman, Leonard Carl	D.C.
Abraham, George			A.B. 1941, The George Washington University	
A.B. 1941, The George Washington University			Alban, Guillermo	D.C.
Abraham, Kathryn Grace			Bachelor 1941, Benigno Malo National College	
Abraham, Evelyn S.			Albert, Alfred Lobe	D.C.
Abraham, Shirley R.			Albertson, Shirley Carter	Va.
Abraham, Jessa May			Albinson, James E.	D.C.
Abraham, Laura			Albright, Robert Mather	Calif.
A.B. 1939, Hunter College			A.B. 1941, Stanford University	
Adams, Percy Margaret			Alcabe, Bernard	N.Y.
Adams, Cora, the John			Alden, Charles William	D.C.
B.S. 1941, Gettysburg University			A.B. 1940, Brown University	
Adams, Carl G.			Alden, Jacqueline	Md.
A.B. 1942, Amastana College			Alden, William Henry	Md.
Adams, Martha Joyce			Alderson, Wilbur Stanley, Jr.	D.C.
Adams, Ann			Aldredge, Charles Leonard	Va.
Adams, Carlton Perry			Alexander, Andrew William	D.C.
Adams, Emma Louise			Alexander, Frank Richard	Va.
Adams, George David			Alexander, Ronald McKenzie	D.C.
A.B. 1941, The George Washington University			B.S. 1941, Southern University	
Adams, Howard Dwight			Alexander, Roy M.	Pa.
A.B. 1941, Miami University			Alexander, Louis L. 4th	N.Y.
Adams, Leona Maude			Alexander, Robert	D.C.
Adams, Robert H.			Alger, Robert M.	Va.
Adams, Samuel Webster			Alho, E. J. 4th, Catherine	N.Y.
Adams, The John C.			Allen, Theodore Henry	D.C.
Adams, Wade Allen			Allen, Arthur	Md.
Adams, Andrew			Allen, Dwight I.	Tex.
Adams, George Q.			B.S. 1939, Texas Christian University	
B.S. 1941, Iowa State College			Allen, Grace Alexander	Mont.
Adams, Keith Earl			Allen, L. Ann	Md.
Adams, Lewis Dinton			Allen, L. Anne	Va.
Adams, Mary Wynette			Allen, Merion Russell	D.C.
Adcock, Constance Olleen			Allen, Norma	Md.
Addicott, Anne C.			Allen, Paul O.	D.C.
Adelman, Sara			Allen, Rex Wayne	Md.
Adkins, Arlie Andrew			B.S. 1938, University of Chicago	
Adler, Alexander			Allen, William Gordon	D.C.
			B.S. in M.E. 1940, University of Illinois	
			Allentuck, Blossom Roalyn	D.C.



[illegible]

## 359

Air w. Henry David	Va	Baker, Robert Sidney	D C
AB 1942, Brooklyn College		Baker, Robert	D C
Arthur, Helen Frances	D C	Baker, William Edgar	Mass
AB 1936, L.B. 1940, University of Georgia		BA 1931, Eastern College	
ILM 1934, University of Michigan		Baker, Martin Edward	D C
Art, Margaret		Baker, Margaret Gerald	Va
Art, T. S.	D C	BA 1942, Dickinson College	
Art, B. Lee W.	D C	Baker, James Linnard, Jr.	Md
Art, William Osborne	Md	Baker, James Travis	Mass
AB 1937, St. John's College		Baker, Lorna	Va
AM 1934, University of Maryland		Baker, Berna Bischoff	D C
Art, Betty Pauline	Ohio	Bae, Max L.	
AB 1941, Ohio State		ILB 1947, Creighton University	
Art, Victoria M.		AM 1942, Connecticut University	
Art, William Lisle	D C	Baker, Mary Loretta	Md
Art, William Clark	D C	Baker, Thomas George	Mass
Art, John Webb	D C	BS 1941, Massachusetts State College	
Art, J. R. Mason	D C	Baker, Jack Marilyn	Md
Art, Margaret Alice	Md	Bae, Donald Everett	N J
Art, N. E. Mason	Md	Ph.D. 1945, Princeton University	
Art, Anna Appleby	Ky	Baker, Robert Francis	Mass
Art, Robert Jasper III	D C	Baker, William Francis	Pa
AB 1941, University of Alabama	Va	Baker, William Henry III	D C
Art, Helen Virginia		BS 1945, The George Washington University	
AP 1941, Radcliffe College	Va	Baker, S. Margaret	N J
Art, Sarah Gertrude	Canada	Baker, Mary Helen	Ind
Art, L. G.	England	Baker, N. A. R.	Va
Art, Ruth Margaret	D C	Baker, James H. Hannah	N J
Art, Ruth	D C	Baker, Leonard Stuart	Ind
BS 1942, New York State College for Teachers		Baker, William George	N Y
Art, Edwin Eldora		AB 1942, Williams College	
Art, Martin	Mass	Baker, Anna W.	Tex
AB 1941, New York University	N Y	BA 1945, University of Texas	
AM 1945, Columbia University		Baker, Robert	D C
Art, L. G. Russell		Baker, L. G. Russell	D C
Art, William Stanley, Jr.	Md	Baker, L. G. Russell	D C
AB 1942, Dartmouth College	R I	AB 1941, Boston Marine College	
Art, Ruth P.	Md	Baker, James Mable	Md
AB 1942, The George Washington University		Baker, Henry Leroy	Ohio
Art, G. G. G. G. G.		Baker, L. G. Russell	D C
Art, Margaret	S D	AB 1942, Mississippi Woman's College	
Art, R. G. G. G.	D C	Baker, M. G. G.	Ky
AB 1941, Ohio Wesleyan University	D C	Baker, M. G. G.	Mass
Art, Frank J.		Baker, M. G. G.	Ohio
Art, Florence	Pa	Baker, Robert	Pa
Art, Arthur Bruce	Va	Baker, Susan Mary, Jr.	Md
Art, M. G. G.	N J	AB 1941, AM 1942, The George Washington University	
Art, P. G. G.	D C	Baker, Susan Mary, Jr.	D C
Art, M. G. G.	Md	BS 1942, University of Maryland	
AB 1942, Radcliffe College	Mass	Baker, Susan Mary	Mass
ILB 1942, Harvard University		Baker, Susan Mary	D C
Art, H. G. G.		Baker, Susan Mary	Pa
Art, A. G. G.	D C	Baker, Susan Mary	Pa
Art, M. G. G.	D C	Baker, Susan Mary	Pa
Art, B. G. G.	Mass	Baker, Susan Mary	Pa
BS 1942, MS. 1934, University of Michigan		Baker, Susan Mary	Pa
Art, G. G. G.		Baker, Susan Mary	Pa
Art, R. G. G.	Mass	Baker, Susan Mary	Pa
Art, L. G. G.	Va	Baker, Susan Mary	Pa
Art, R. G. G.	Ill	Baker, Susan Mary	Pa
Art, M. G. G.	Va	Baker, Susan Mary	Pa
BS 1942, University of Pittsburgh	Pa	Baker, Susan Mary	Pa
Art, Margaret Christine	N Y	Baker, Susan Mary	Pa
B		Baker, Susan Mary	Pa
Babcock, Henry Allen		AB 1941, AM 1945, The George Washington University	
AM 1942, The George Washington University	Ark.	Baker, Susan Mary	Md
Babcock, J. Willard	Md.	Baker, Susan Mary	N M
		Baker, Susan Mary	Pa
		Baker, Susan Mary	Pa

Ballas, Joanna Ratliff	D.C.	Barrows, Vinnie Giffen	D.C.
Ballou, Kenneth Clark	Mich.	A.B. 1906, Pomona College	
Ballou, Margaret Frances	Tex.	A.M. 1911, The George Washington	
Balmer, Harry Arnold	Va.	University	Va.
Balwanz, William W.	Ohio	Barry, David Morse	Mass.
B.E.E. 1941, The George Washington		Bart, Mary B.	Va.
University		Bart, William Taylor III	D.C.
Band, Philip Theodore	D.C.	Bartman, Flora Marie	D.C.
Band, Raymond Isaac	D.C.	Bass, Albrecht Paul	D.C.
Bane, Jack Miles	D.C.	Basky, Sylvia Sarah	D.C.
Bange, Agnes Ward	D.C.	Bartemeier, Teresa Jean	N.Y.
Bange, Glenn Kesh	Pa.	Barth, Joseph	N.Y.
Bangan, Elisabeth Clara	Va.	Bartholomew, Thomas Mead	
Banks, Dolly M.	Ky.	Bartimer, Herman	
Banks, Helen Leona	D.C.	B.S. 1911, College of the City of	Mass.
Banks, Melvin R.	N.Y.	New York	
Banks, Vivian Albert	D.C.	Bartimo, Frank Antonio	Mass.
Banner, Chrystine Hill	Va.	A.B. 1941, Clark University	
Banner, Arnold David	D.C.	Bartimo, Kathryn D.	
Baran, Saul	N.Y.	B.S. in Ed. 1937, A.M. 1938, State	
B.S. 1918, Long Island University		Teachers College (Worcester, Mass.)	D.C.
Barauck, Alfred Howard	D.C.	Ph.D. 1941, Clark University	N.Y.
A.B. 1941, New Jersey State Teach-		Bartlett, John Stanton, Jr.	
ers College		Bartlett, Adair Partridge	
Barber, Alexander William	Pa.	B.S. 1941, Massachusetts Institute	D.C.
Barber, Emory Johnson	N.C.	of Technology	
Barber, Forest C.	Okla.	Barton, Eleanor Browning	Mass.
Barber, Oren Gilbert	Va.	A.B. 1940, Swarthmore College	
B.S. 1929, Northwestern University		Barton, Olive Hazel	Mich.
Barbuto, Anthony Robert	Conn.	A.B. 1939, Wheaton College (Mass.)	
Bardt, Richard Stanley	D.C.	Barton, Olive Neville	
Bares, Mauricio Juan	D.C.	Ph.B. 1914, University of Chicago	
Barger, Ben	D.C.	J.D. 1921 A.B. in L.S. 1942, Uni-	
versity of Michigan	N.D.		
Barker, James D.		Barton, William Karl	Wash.
A.B., B.S. 1939, University of North		B.S. 1939, Boston University	
Carolina		Basher, Philip Theodore	N.Y.
M.D. 1941, University of Pennsyl-		Bashore, Eugene H.	D.C.
vania		Basilone, Joseph James	Id.
Barker, Charles Paul	N.Y.	Baskin, Doris Virginia	Pa.
A.B. 1940, University of Michigan		Bass, Frances Eva	D.C.
Barker, Martha Spencer	D.C.	A.B. 1941, Rice Institute	
Lawrence, Kansas	D.C.	Bass, Frieda	Pa.
B.S. 1941, A.M. 1947, George Pea-		Bass, George	Pa.
body College for Teachers		Bass, Mary G.	Va.
Barnes, Thomas John	N.Y.	Bass, Richard W.	Pa.
Barnes, Edgar Harry	Pa.	Bassett, Edward Barton	
Barnes, Betty Lou	Ill.	B.A. 1912, Catholic University of	Mich.
Barnes, James Austin	N.Y.	America	
A.B. 1937, Syracuse University		Bassett, Jack Olin	Pa.
Barnes, John Walter	Md.	B.B. 1911, Johns	Va.
Barnes, Paul E.	Nebr.	B.B. 1911, Mary Davy	Va.
Barnes, Mabel Emily	N.J.	Bates, David McCreary	
A.D. 1941, Vassar College		Bates, Hans Clark II	Va.
A.M. 1946, University of Chicago		B.S. 1940, University of Virginia	
B.S. in L.S. 1938, Columbia Uni-		Battistero, Kathryn Anita	
versity		Batten, Caleb Livingston	D.C.
Barnes, Robert Grabill	Va.	A.B. 1942, University of Richmond	
Barnett, Auswell Creed	Tex.	Bauer, Donald Francis	Md.
Barnett, Clara H.	D.C.	Bauer, Marie Louise	N.Y.
B.S. in Ed. 1933, Ohio State Uni-		Bauer, Robert Vincent	Id.
versity		Bauerfeld, Carl Frederick	
Barnett, Lois Lucille	Md.	Bauerfeld, Samuel Richard	
Barnett, William Martin	D.C.	Baughman, George Fechtig	
Barnum, Anna	D.C.	B.S. & B.A. 1917, LL.B. 1919,	
Bartley, Charles Norton	D.C.	University of Florida	
Barr, Frances Alberta	N.C.	Baum, Mark	
A.B. 1942, Berea College		B.S. 1940, College of Idaho	
Barr, Gloria Lorraine	D.C.	Bauman, C. Christine	Mass.
Barrett, John William	Iowa	Bauman, Merdella Dee	
Barrett, M. Judith	Pa.	Bauman, Mildred Lucilla	
Barrett, Thomas Joseph	Pa.	Baumann, Betty Jane	
Barrett, William Waldo	Utah		
Barrow, Elizabeth Anne	D.C.		



## 361

[illegible]





## 363

[illegible]





Students Registered

365

Braggs, Dorothy Elizabeth	Va	Brown, Alberta	Tex
Braggs, Virginia Carter	Md	A.B. 1911, 1914, Bachelor University	
Braggs, Anna Louther	Md	July 1922, The George Washington	
Braggs, Margaret Louise	D.C.	University	
Braig, Blena Rhyer	D.C.	Brown, Institute Kaplan	Va
A.B. 1917, The George Washington		Brown, Benjamin M.	R.I.
University		B.S. 1916, M.S. 1918, Rhode Island	
A.M. 1919, New York University		State College	
Bell, Charlotte L.	D.C.	Brown, College	Va
A.B. 1918, Hunter College		Brown, Craig Franklin	D.C.
Bra, Carl	Panama	Brown, Donald Foster	W.Va
Brawley, James Raymond	Ill	A.B. 1921, B.S. 1923, West Virginia	
Brickman, W. Ruth A.	D.C.	University	
Brickmann, Frank A. William	Iod	Brown, Leonard Louise	Va
Brinkmeyer, Charlotte Amelia	Iowa	Brown, Lewis	Md.
Brinker, Sarah Franklin	D.C.	Brown, Evelyn M.	Tex
B.S. 1926, Women's College of the		Brown, Evelyn G.	Cal
University of North Carolina		Brown, Frances E.	N.Y.
A.M. 1935, The George Washington		Brown, Harold Arthur	N.H.
University		B.S. 1916, Massachusetts Institute	
Brinkley, Elmer Robert	Ohio	of Technology	
B.S. 1912, Yale University		Brown, Harv. I.	Ky
Brinow, Helen Sawyer	Va	B.S. 1912, Western Kentucky State	
A.B. 1916, Madison College		Teachers College	
Brinow, Joseph Quayle	Va	Brown, Bernice Kapp	Va
Briz, John Francis X.	N.Y.	A.B. 1914, Wellesley College	
A.B. 1912, The George Washington		Brown, Helen Louise	N.Y.
University		Brown, Irene May	Md.
Britell, L. Maxine	D.C.	Brown, James Robert	Md.
Britt, William, Rufus Lee	Va	Brown, Jeannette Alta	D.C.
Britt, Glynn Arthur	Mo	Brown, Kenneth L.	Mass
Brit, Harry Peter, Jr.	Neb	Brown, Lillian M. Howard	S.C.
B.S. in M.B. 1934, University of	D.C.	A.B. 1912, Virginia Smith College	
Arkansas		Brown, Leonard Edmund	Va
A.M. 1919, Catholic University of		Brown, Louise West	Va
American		A.B. 1911, Maryville College	
Broadus, Florence Farwell	D.C.	Brown, Leonard Ralph	N.Y.
B.S. 1911, Wilson Teachers College		Brown, Louis Vincent	Va
Broadus, Helen	Tex	Brown, L. Kathryn	Tex.
Brock, Alvin Chapin	Md	A.B. 1918, West Texas State Teach-	
Brock, Howard Thomas	D.C.	ers College	
Brock, Josephine	D.C.	Brown, Luther A. Laphus, Jr.	D.C.
Brock, Albert P., Jr.	Md.	Brown, Maurice Lee	D.C.
Brock, Jean Marie	Md.	Brown, Mary Ruth	Md.
Brock, Adele	D.C.	Brown, Mary Frances	D.C.
Brodie, Loy Hall	D.C.	A.B. 1912, American University	
Brodie, Sidney Irving	D.C.	Brown, Melvin Mamet	Va
A.B. 1919, Harvard University	Mass	A.B. 1911, University of Missouri	
Bronfenbrenner, Jean Andrus	D.C.	Brown, Merrill R.	Va
A.B. 1939, University of Chicago		Brown, Nina Foster	D.C.
Bronfenbrenner, Martin	D.C.	Brown, Nora Louise	W.Va
Ph.D. 1934, Washington University		Brown, Paul Rosen	Md.
Ph.D. 1939, University of Chicago		Brown, Ralph Sharp, Jr.	Md.
Bronson, Julian Wilson	Ohio	A.B. 1918, LL.B. 1919, Yale	
Bronstein, Julius	N.Y.	University	
Bronstein, Sara	N.Y.	Brown, Raymond Nathan	D.C.
Broodo, Helen	N.Y.	Brown, Robert Alfred	D.C.
Brook, M. Menica	Tex	Brown, Roberta Mae	D.C.
Brooke, Pilly Ann	N.Y.	Brown, Laura Wee	Ark.
Brown, John Hubbard	Md	A.B. 1918, Henderson State Teachers	
Brown, Barbara Lee	Pa	College	
Brown, Edward Theodora	D.C.	Brown, Virginia Geraldine	D.C.
Brophy, Loretta Margaret	Fla	Brown, Virginia Loretta	D.C.
Bowles, Genevieve	Minn	Brown, William Herrick	Pa.
Bowlow, Sylvia A.	Pa	Brown, William Vincent, Jr.	Tex
Bowman, H. Stratford	N.Y.	B.E.A. 1911, University of Texas	
Bostman, Alfred B.	Utah	Brown, William Warren	Va
Brougher, John Frederick	D.C.	A.B. 1912, Grinnell College	
A.B. 1926, A.M. 1929, Columbia	Va	Bowme, Audrey Bernadine	D.C.
University		Bowme, Denise L. Potter	Md.
Brower, Henry Umstad	Pa.	Brownfield, Mary Frances	Ohio
		B.S. 1917, Ohio State University	
		Browning, Joseph Wilmont, Jr.	N.J.
		A.B. 1939, University of Alabama	



Burke, James Harrison, James	N.Y.	Burke, Mary Margaret	Mass.
A.B. 1927, Hamilton College		Burke, Mary Frances	Mass.
Burke, William III	D.C.	Burke, Charles William Jr.	
Burke, John Edward	South Africa	B.S. 1922, Harvard University	
A.B. 1925, University of South		P.D. 1925, University of Munich	
A.		Burke, Henry J.	
Burke, Mary Elizabeth	MD	Burke, Robert Allen	
Burke, Vernon Walter	S.D.	Burke, Albert Allen	
B.S. 1916, University of		Burke, Mary Louise	
South Dakota		Burke, Sam Siskery	
Burke, Martin Willis	Va.	A.B. 1919, The George Washington	
Burke, Ruth H. H.	D.C.	University	
B.S. 1941, The George Washington		Burke, Norman Eugene	
University		Burke, Fred M.	N.Y.
Burke, William R. H.	N.Y.	Burke, Donald Francis	
B.S. 1941, A.M. 1942, Columbia		B.S. 1941, New York University	
University		Burke, George W.	
Burke, George A.	N.Y.	A.B. 1922, University of Cincinnati	
Burke, David H. Jeanice	D.C.	P.D. 1921, University of Minnesota	
Burke, Albert	Va.	Burke, Robert Henry	
Burke, George Rex	Ky.	Burke, Charles Frances	
Burke, John M. Moore	Va.	B.S. 1915, College of William and	
Burke, Mary Margaret	D.C.	Mar.	
Burke, N. K. Jr.	Pa.	M.S. 1921, University of Maryland	
Burke, Louis June	W.Va.	Burke, Mary B.	
Burke, Robert J.	N.Y.	Burke, George Shaw	
Burke, David	Ill.	Burke, George Lee	
Burke, Albert	D.C.	Burke, Frank Daniel	
Burke, Dorothy Marie	Ark.	Burke, Helen N.	
Burke, Thomas H.	Mo.	B.S. 1914, College of the City of	
Burke, George Henry	Ill.	New York	
Burke, Lee Robert	Utah	Burke, Samuel David	
Burke, Louis Leonard	D.C.	B.S. 1922, Iowa College	
Burke, Mary	D.C.	Burke, Charles May	
Burke, Verley Rex	Neb.	A.B. 1915, M.S. 1918, University of	
Burke, Ruth Anne	Pa.	C.	
B.S. 1915, University of Minnesota		Burke, Louis Estelle	
Burke, Charles Edwin	Ill.	Burke, Henry E.	
Burke, Lee Jeanice	Pa.	Burke, Thomas Sanders	
Burke, Anne I.	Wab.	Burke, John	
Burke, Mary W.	Mass.	A.B. 1914, Murray State Teachers	
Burke, Charles Lowell	Mass.	College	
Burke, James Robert	Calif.	Burke, Alexander	
B.S. 1925, Utah State Agricultural		A.B. 1915, Marietta College	
College		B.M. 1915, University of South	
L.D. 1927, The George Washington		D.C.	
University		Burke, Paul Virginia	
Burke, Edward Alexander	Ill.	Burke, Mary Ivan Alice	
Burke, James E.	Calif.	Burke, Charles C. Jr.	
Burke, Virginia Mary	Tenn.	Burke, Carl James	
Burke, Nettie	D.C.	Burke, George William	
Burke, Mary Louise	Tex.	Burke, John Francis	
Burke, William Harold	Mo.	B.S. 1922, Georgetown University	
A.B. 1925, University of Oklahoma		Burke, John E. H.	
Burke, Betty Irwin	Ga.	Burke, Thomas Franklin	
Burke, Jerry Watson, Jr.	Mass.	Burke, George Wilson	
A.B. 1915, Princeton University		B.S. 1911, 1922, University of	
Burke, James	N.Y.	Mass.	
Burke, Ernest Howard	Tenn.	A.M. 1915, The George Washington	
Burke, Arthur Lewis	D.C.	University	
Burke, Carl Edward	Tex.	Burke, John R. Hard	
B.S. 1941, West Texas State Teachers		A.B. 1911, Oklahoma Agricultural	
College		and Mechanical College	
Burke, Chester Warren	D.C.	Burke, William Emil	
Burke, Suzanne	Mass.	Burke, John Ross	
Burke, Margaret F.	D.C.	Burke, Paul V.	
A.B. 1941, Hunter College		Burke, Milton F.	
Burke, Calvin Roscoe	D.C.	Burke, Robert Daise	
Burke, Harold Gray	W.Va.	Burke, Howard Franklin	
Burke, Joseph Russell	Fla.	Burke, Kenneth Arthur	
B.S. 1942, University of Georgia		A.B. 1924, Colorado State College	
Burke, Martin Leonard	N.C.	of Education	
Burke, Mary Frances	Pa.		



Christensen, Hans Peter	Ohio	Chasen, Irving Lee	Pa.
M.B.A. 1928, Ohio State University		Chaska, Ralph John	Mass.
Carter, Betty Edwin	D.C.	Cheney, Vincent Victor	
Carter, Claude	Tex.	A.B. 1941, University of Maine	D.C.
Carter, DeWitt	Tex.	Cheney, Rosalita	N.Y.
Carter, John Paul	D.C.	Cherry, Nancy	
A.B. 1941, The George Washington University		A.B. 1937, Winthrop College	
Carter, Mary Marjorie	Md.	Chertock, George	
Carter, Catherine De France	Ohio	B.S. 1930, College of the City of New York	D.C.
Carter, Mary Lynn	Ohio	Chervy, Alexander	D.C.
Cassidy, Jerome Francis	Ill.	Cherry, Evelyn Ruth	Md.
Cassidy, Raymond Francis	D.C.	Cherry, James Wilson	D.C.
Cassidy, C. Anthony	Ohio	Cherry, Lorraine Marie-Leome	D.C.
Cassidy, Carl M.	Mass.	Chew, Audrey	
Cassidy, Ernest Raymond, Jr.	Wyo.	A.B. 1941, The George Washington University	D.C.
Cassidy, James H.	Pa.	Chew, Geoffrey Foucar	D.C.
Cassidy, Louis Albert	Pa.	Chew, Dorothy Vera	D.C.
Cassidy, Irving S.	N.Y.	Chew, Mildred	D.C.
Cassidy, Arthur S.	Mass.	Chew, Roslyn	D.C.
Cassidy, William J.	Ky.	Chew, Ralph LeRoy	Ind.
Cassidy, John Gwynn	D.C.	Chew, Melissa Alice	Tex.
Cassidy, Mary Lee	Va.	Chew, Austin Bruce	Mass.
Cassidy, Margaret Louise	D.C.	Chew, Carl Sloan, Jr.	
Cassidy, Betty	D.C.	Chen, Park David	D.C.
Cassidy, Lee G.	D.C.	B.S. 1941, Boston University	
Cassidy, Frances Lois	Neb.	Chen, Marion Louise	Conn.
Cassidy, Martha Eleanor	D.C.	Chen, William	N.Y.
Cassidy, Vernon Verdon	Va.	Chermsfield, Stanley S.	
Cassidy, William Joseph	D.C.	B.S. in Chem.E. 1940, Cornell University	Idaho
Cassidy, William Dennis	Md.	Chermsfield, Stanley S.	
Cassidy, Arthur	N.Y.	Chermsfield, Stanley S.	
Cassidy, Charles Frederick	SC	Chermsfield, Stanley S.	
A.B. 1941, Winthrop College		Chermsfield, Stanley S.	
Cassidy, Charles August	D.C.	Chermsfield, Stanley S.	
B.S. 1942, Georgetown University		Chermsfield, Stanley S.	
Cassidy, James June	PR	Chermsfield, Stanley S.	
B.S. 1942, University of Puerto Rico		Chermsfield, Stanley S.	
Cassidy, Hyman	D.C.	Chermsfield, Stanley S.	
Cassidy, Anthony	Va.	Chermsfield, Stanley S.	
Cassidy, Mary George	D.C.	Chermsfield, Stanley S.	
Cassidy, Bernard	N.Y.	Chermsfield, Stanley S.	
B.S. 1941, College of the City of New York		Chermsfield, Stanley S.	
Chasens, Walter Eugene	Md.	Chermsfield, Stanley S.	
Chasens, H. McElroy	Ind.	Chermsfield, Stanley S.	
Chasens, Allen H.	Md.	Chermsfield, Stanley S.	
Chasens, Lewis Meredith	D.C.	Chermsfield, Stanley S.	
Chasens, Philip Owen	Md.	Chermsfield, Stanley S.	
B.S. 1941, Harvard University		Chermsfield, Stanley S.	
Chasens, Sidney S.	N.Y.	Chermsfield, Stanley S.	
B.B.A. 1942, College of the City of New York		Chermsfield, Stanley S.	
Chasens, George Henry	Vt.	Chermsfield, Stanley S.	
Chasens, Francis William	Md.	Chermsfield, Stanley S.	
B.S. in E.E. 1934, Georgia Institute of Technology		Chermsfield, Stanley S.	
Chasens, Mary Louise	N.Y.	Chermsfield, Stanley S.	
Chasens, Neline Hannah	Kans.	Chermsfield, Stanley S.	
Chasens, Homer	SC	Chermsfield, Stanley S.	
Chasens, Lawrence Franklin	Neb.	Chermsfield, Stanley S.	
Chasens, George Estelle	D.C.	Chermsfield, Stanley S.	
Chasens, Lewis M.	D.C.	Chermsfield, Stanley S.	
Chasens, Percy Roger	D.C.	Chermsfield, Stanley S.	
Chasens, Robert Mills	Ill.	Chermsfield, Stanley S.	
B.S. 1941, Northwestern University		Chermsfield, Stanley S.	
Chappell, Adele Hane	SC	Chermsfield, Stanley S.	
Charles, Anita Sophia	D.C.	Chermsfield, Stanley S.	
Charles, Jessalynne Lorraine	D.C.	Chermsfield, Stanley S.	
Chase, Allan	N.Y.	Chermsfield, Stanley S.	
B.S.S. 1930, College of the City of New York		Chermsfield, Stanley S.	
Chase, Arthur Francis	Ohio	Chermsfield, Stanley S.	



## 360)

[illegible]



[illegible]



[illegible]



## 373

Day, Ernest Herbert			
AB 1941, Oberlin College	Ohio	DeMello, Antonio	Mass
Day, Kenneth Hiram		Desautels, Louis Mervin	MD
Day, Leonard Vesper	Ma	Desautels, Louis and Edwin	MD
Day, Louise R. H. Jr.	DC	BS 1942, MBA 1941, Harvard	
Day, Mary Virginia	NY	University	
BS 1934, New York State College		Derry, Lawrence Eugene	DC
for Teachers		Derry, Edna Mary	Pa
Day, Maurice F.		AB 1941, The George Washington	
BS 1933, State Teachers College	Tenn	University	
(Johnson City, Tenn.)		Deser, Edwin James	DC
Dayton, Glenn Orville		Deser, Mary Judie	Pa
Deal, William Paul	Calif	Dick, Harry Walter	Calif
Dean, Ben Leroy	Ariz	AB 1941, University of California	
Dean, Helen Ruth	Iowa	at Los Angeles	
Decker, R. R. A. Baumann	Tenn	Dickens, Chad Michael	Pa
Deery, Robert Alfred	Pa	Dickens, Louis F.	Mass
AB 1941, The George Washington	DC	BS 1941, College of the Holy	
University		Cross	
Deas, Harry Lee, Jr.		DeRosa, John	DC
BS 1941, Tulane University	La	Desmar, Ruth Elizabeth	DC
of Louisiana		AB 1941, Mount Holyoke College	
Deavers, William Parker, Jr.		DeRosa, Edward Francis	Mass
DeBellef, Caroline Eliza	DC	Dick, Vernon F.	MD
DeBellef, John Kenneth	MD	Dickens, James George	DC
DeBellef, Warren Claude	Pa	Dickens, Katherine C.	DC
DeBellef, Edward Herbert, Jr.	Pa	Dickens, Louis	DC
DeBellef, Laura E.	Va	Dickens, Mary Alice	Va
DeChavez, Eugene	Calif	Dickens, M. Raphael	DC
AB 1940, AM 1927, University	MD	Dickens, Walter	MD
of Washington		AB 1928, Western Maryland College	
Decker, J. L. Alfred		AM 1925, University of Missouri	
Decker, Dorothy Jean	Pa	Devine, James Peter	Pa
Decker, Andrew Paul, Jr.	DC	Devine, Margaret Katherine	DC
AB 1941, The George Washington	Pa	Devine, John	NY
University		Devine, John D. Owen	DC
Deek, Boris Leon		Devine, Mary M.	Tenn
Deek, E. Louis Andrew	Pa	Devine, Howard Homer	DC
Dee, Patricia Gloria	Pa	AB 1941, The George Washington	
Dee, Edna Jean	Pa	University	
Dee, Louis Howard	W. Va	Devine, Robert	DC
Dee, William Taylor, Jr.	MD	Devine, Zelda	DC
Dee, Edwin William	Va	Devine, David	DC
Dee, Bernard Arthur	Va	Dix, Josephine Rose	NY
Dee, Dora Margaret	MD	AB 1937, Brooklyn College	
Dee, John Joseph	DC	Dix, George Calvin Joseph	NY
Dee, Elva N.	MD	AB 1941, Wagner Memorial Insti-	
Dee, Norma Nevada	Tenn	tute College	
Deer, Mary Lee	Pa	Dixon, Belle	NY
Deer, Audrey Leidas	Mont	Dixon, Edgar	DC
Deer, William, Alvan Joseph	DC	Dixon, Ernest Barclay	DC
Deer, William, Walter	DC	Dixon, Charles A. Jr.	DC
Deer, Robert R. and Getraude	DC	Dixon, Charlotte Ann	Va
Deer, Otto Joseph	DC	AB 1941, Washington College	
De La Barte, Patricia Faye	NY	Dixon, Aves Herman	NC
De La Garza, Hector Ruben	Calif	BS 1941, University of North	
De La Rosa, John A. Vincent	Tenn	Carolina	
De La Rosa, Mary Louise	DC	Dixon, Edwin Allen	Va
De La Rosa, John F. Dean	DC	Dixon, Louis Francis	Pa
De La Rosa, Helen	DC	Dixon, Marion Leonard	DC
De La Rosa, Sappho	Nov	AB 1941, Southwestern University	
De La Rosa, Joseph William	DC	Dixon, Louis Marie	MD
De La Rosa, Victor	DC	Dixon, C. V. Victor	DC
De La Rosa, Tina Villarias	MD	HB 1941, The George Washington	
De La Rosa, Julia C.	Va	University	
De La Rosa, R. Polytechnic Institute of	DC	Dix, Louis	DC
De La Rosa, Charles Melvin		AB 1941, Arch College	
De La Rosa, Victoria Barbara	DC	Dixon, Maud Louise	Pa
De La Rosa, Jane Katherine	Mass	Dixon, Barbara Lee	DC
De La Rosa, R. Howard John	DC	Dixon, Dorothy Mary	DC
De La Rosa, Fernando Saboia	W. Va	Dixon, Carol Harriet	MD
	Brazil	Dix, Louis	NY
		Dillard, Katherine A.	Pa



Dallaiva, Betty Jean	Iowa	Danav, Peter Benedict	
Dallaiva, Robert Beachum	D.C.	Danzon, John Franklin, Jr.	
Dale, Alan Abraham	D.C.	Danzon, Mary Elizabeth	
Dale, Helen	D.C.	Doran, Venora Jewell	
Dale, Nancy	N.Y.	A.B. 1940, Indiana University	
Dale, Vernon R.	Kans.	Dartman, Milton	
Dale, William David	Va.	A.B. 1939, New York University	
Dale, Zetta Sawyer	Md.	Doria, Herson de Faria	
Dale, Foster & Theodore	Conn.	Dorius, John Byron	
Dale, Marvin E.	Fla.	A.B. 1941, University of Utah	
Dale, Joseph J.	D.C.	Dornath, Gerhard Emil	
A.B. 1942, Brooklyn College		Dorsey, Joan Frances	
Daniel, Frank	N.Y.	Dorsey, Louise	
Daniel, Oscar Charles	Pa.	Dorsey, Robert I.	
Daniel, Allen William	Md.	Dorsey, Emil, Jr.	
Daniel, James Earl	W.	A.B. 1930, Marshall College	
Davis, Martha MacLellan	Va.	Dorsey, Margaret W.	
Davis, William R.	Calif.	A.B. 1926, University of Richmond	
A.B. 1937, Pomona College		A.M. 1931, Columbia University	
A.M. 1910, University of Cincinnati		Dorsey, Marjlene I.	
Dixon, Kenneth Lee	Ind.	Dorsey, Mildred Marguerite	
Dixon, Marion Louise	Va.	A.B. 1941, The George Washington University	
Dixon, Ola M.	Va.	Dougherty, Francis R.	
Dixon, Wendell Lowell	Id.	Dougherty, James Michael	
Djordjevitch, Maria Petrova	D.C.	Dougherty, M.E. Elizabeth	
Doran, John Lind	Va.	Dougherty, Mary Amanda	
Doran, Herbert	D.C.	Dougherty, Robert J.	
M.E. 1940, Stevens Institute of Technology		Douglas, Lillian Arnold	
Dorck, J. J. Paul	Pa.	A.B. 1941, College of William and Mary	
B.S. 1941, University of Pittsburgh		Douglas, Roberta Quirk	
Dorck, Norman Ballard	Tex.	Douglas, William Jake	
Dodd, Jay Francis	D.C.	Douglas, Eric Michael	
Dod, Robert Clyde	Va.	Douglas, Samuel	
Dodge, Doris DeNelle	Ill.	B.S. 1940, Wilson Teachers College	
Dodge, Thomas W.	D.C.	Dow, Jean Lee	
Dodson, Bottwood Edmund	Md.	Dow, G. Lawrence	
Graduate 1924, United States Naval Academy		Dow, James Francis	
Dodson, Nat Alexander	Va.	Dow, Samuel Eugene	
Doe, Frank H. B.	Va.	Dow, Samuel Eugene	
Doring, Edgar A. Paul	Ill.	Dow, Victor August	
Dorland, Frank	N.Y.	Dow, Dorothy R.	
Dolan, Bernard William	Ill.	B.S. 1937, Southwest Texas State University	
Dolan, Marion Agnes	D.C.	Dow, Mary Margaret	
Doland, Alger Burr	N.J.	Dowling, Mary Bees	
Dorland, Ivan	D.C.	A.B. 1941, William Jewell College	
Dorland, Lela Helen	D.C.	Dowling, David Alfred	
Dorland, James Paul	Tex.	Dowling, John Lee	
Dorn, Jesse Ray	Md.	Dowling, Joseph Bernard, Jr.	
Dorn, Roy	N.Y.	Dowling, Mary Joan	
B.S. 1941, College of the City of New York		A.B. 1935, The George Washington University	
Dominick, William Elliott	Mass.	Dove, Mary Margaret	
B.Chem. 1910, Cornell University		Dove, James Joseph	
Donahoe, Mary Margaret	Va.	Dove, Abe M.	
B.S. 1935, Yale University		A.B. 1940, The George Washington University	
Donahue, Freda Kathleen	Calif.	Dove, Louis Paul	
Donahue, John Andrew	N.Y.	Dove, Susan M.S.	
Donald, Ruth	D.C.	Dove, Mary Margaret	
Donaldson, Peter Mae	D.C.	A.B. 1941, Texas State College	
Donaldson, John S. Eugene	Ill.	Dowling, David Alfred	
Donaldson, John S. Eugene, Jr.	D.C.	Dowling, Joseph Bernard, Jr.	
Donaldson, Robert R.	Ill.	A.B. 1935, The George Washington University	
LL.B. 1941, University of Florida		Dove, Mary Margaret	
Doran, Betty Jane	Ill.	Dove, Susan M.S.	
Doran, Henry Campbell, Jr.	Pa.	Dove, Mary Margaret	
B.S. 1941, University of Pennsylvania		Dove, Susan M.S.	
Doran, Henry James, Jr.	Md.	Dove, Mary Margaret	
B.S. 1942, University of Pennsylvania		Dove, Mary Margaret	
Doran, Thomas A. Jr.	D.C.	Dove, Mary Margaret	
B.S. 1940, Georgetown University		Dove, Mary Margaret	
Doran, Paul Lee	D.C.	Dove, Mary Margaret	
Doran, Katherine R.	Mass.	Dove, Mary Margaret	



Ehlers, Joseph Henry B.S. 1914, M.S. 1916, Trinity College (Conn.)	Calif	Engel, Elizabeth Isabel Engel, Gertrude	N.Y.
Ehrenkrantz, Marion	N.Y.	Engel, Melvin Martin	N.Y.
Ehrmantraut, Harry Charles	D.C.	Englander, Florence	N.Y.
Ernstson, Charles Bingley	D.C.	Engler, John Peter	Kan.
Ernst, Harry Edward, Jr.	Pa.	B.S. 1930, University of Rochester	Mass.
Famberg, Mel	N.Y.	Engler, Carl Janet	
Farr, Janet, Gertrude Claire	MI	Engler, John Philip	Tenn.
Farrington, Davetta	D.C.	A.B. 1932, Williams College	
Farrar, Rosalie A.	MI	M.B.A. 1948, Harvard University	
Farrar, Vivienne M.	Calif.	Engler, Ernest Young	
Farrar, Howard Edward	D.C.	A.B. 1941, The George Washington University	
Farrar, James E.	Mass.	Engler, Susan Eleanor	
B.Chem.E. 1941, M.S. 1941, Uni- versity of Minnesota		Engel, Neva Struggs	
Fels, Sarah Mervallus	D.C.	B.S. in Ed. 1931, University of Nebraska	Va.
Festari, John Carlson	Calif.	Engel, Alan Beaumont	D.C.
Fletcher, Layne Russell	N.Y.	Engel, Anna Mae	N.J.
Fletcher, Paul	D.C.	Engel, Bernard	
A.B. 1939, Catholic University of America		A.B. 1940, M.S. 1943, New York University	N.Y.
Flehter, Gust	Calif.	Engel, Bernice	N.Y.
Fleming, Claire Winifred	D.C.	Engel, Joseph Bernard	
Fleming, Verne H.	Calif.	A.B. 1932, The George Washington University	N.Y.
Fleming, Marcelle Drang	N.Y.	Epstein, John Abraham	Calif.
Fleet, Gladys	N.Y.	Epstein, Eugene	D.C.
A.B. 1943, Hunter College		Epstein, Morris Herman	N.D.
Elkin, Lee Judith	N.Y.	Epstein, Sylvia Marie	MI
B.S. 1941, New York University		Epstein, Robert Lyle	D.C.
Elkman, May	N.Y.	Epstein, Rose	D.C.
Elkman, Anne Moore	Mass.	Epstein, Julia and Charles, Inc.	N.Y.
A.B. in Ed. 1941, The George Washington University		Epstein, Sara Ray	D.C.
Elmer, Melvin Louis	Neb.	Epstein, Stanley Anita	N.Y.
Elmer, Mauda M.	Va.	Epstein, Mabel	D.C.
Elmer, Louis Davies	N.C.	A.B. 1942, The George Washington University	
B.S. 1941, Washburn College		Ernst, Walter Carl	Calif.
Ernst, Clyde Wilson	W.Va.	Ernst, Ruth Della	
Ernst, Jane Louise	N.Y.	Ernst, Betty Jane	
Ernst, John Moore	Calif.	Ernst, Virginia Henry	
A.B. 1942, Stanford University		Ernst, Kenneth S.	
Ernst, Mary Elizabeth	N.Y.	B.S. 1942, Duquesne University	
Ernst, Patricia Adelaide	Tenn.	Ernst, Andrew Nelson	
Ernst, Robert S.	N.Y.	Ernst, Samuel George	
A.B. 1942, B.S. in E.E. 1943, Columbia University		B.S. 1942, Massachusetts Institute of Technology	
Ernst, Robert Stanley	Ill.	M.S. 1947, Northwestern University	
Ernst, Charles Richard	D.C.	Ernst, Elizabeth Marie	Mass.
Ernst, Lys Moore	W.Va.	Ernst, Augusta Imelda	Calif.
Ernst, Hazel Bower	Ky.	Ernst, Elizabeth	Tenn.
Ernst, Margaret Lorraine	D.C.	Ernst, Louis Medred	
Ernst, Frances Mary	D.C.	Ernst, Richard Lee	
Ernst, Mary Alice	Va.	B.S. 1935, The Citadel	
Ernst, Wanda Stubbs	Va.	A.B. 1947, University of Houston	
Ernst, Homer Smith	Ariz.	A.M. 1947, Baylor University	
B.S. 1942, University of Arizona		Ernst, Alice Evelyn	
Ernst, William Martin, Jr.	D.C.	Ernst, Ann Ryan	
Ernst, Edna Earle	Va.	Ernst, Cora DeForest	
A.B. 1937, A.M. 1938, University of Maryland		Ernst, Elaine	
Ernst, Karl Erik	Tenn.	Ernst, Harold Robert	
A.B. 1932, Southern Methodist University		Ernst, Jane Stokes	
A.M. 1939, University of Texas		Ernst, John Medred	
Ernst, Betty DeWitt	D.C.	B.E. 1942, Syracuse University	
Ernst, Scholastic	D.C.	Ernst, Louise Estelle	
Ernst, Howard Collins	D.C.	Ernst, Myrtle Oliver	
Ernst, Carl Wilbur	D.C.	Ernst, Naomi Ruth	
Ernst, William Joseph	N.J.	Ernst, Robert William	
B.S. 1940, Catholic University of America		Ernst, Catharine Adele	
Ernst, Anne Catherine	MI	Ernst, Louise	
Engel, Francis J.	N.Y.	Ernst, Grace Elizabeth	
		A.B. 1942, Vassar College	
		Ernst, Mary Adelaide	



# Students Registered

377

Everly, Ellen Jane		Faulkner, Joseph Goodson	D.C.
Everly, Margaret Madonna	Pa.	B.S. 1931, University of North	
Evergam, Carolyn Weaver	Pa.		
Evert, Marcia Elizabeth	D.C.		
A.B. 1942, The George Washington	Md.	Faulkner, Clara A.	Kans.
University		Faulkner, John Gray	N.J.
Ever, Florence Hamilton	Neb.	A.B. 1942, Colgate University	
Ever, Lillian Clark	Md.	Faulkner, Mary Mae	R.I.
A.B. 1941, Johns Hopkins University		Faulkner, Frank Charles	D.C.
Ewa, Christine Magdalena	Mass.	Faulkner, Robert Hall, Jr.	D.C.
A.B. 1941, The George Washington		Faulkner, Mary Jane	D.C.
University		Faulkner, Mary Jane	Md.
Exeter, Marguerite Batts	D.C.	Faulkner, Arthur David	Mass.
		Faulkner, Anthony N.	U.S.S.R.
		M.E. 1941, Georgetown Medical	
		College (M.D., U.S.S.R.)	
F		Faulkner, John Bernard	D.C.
Fabian, Frances Lilly		Faulkner, Ayn Arthur	N.Y.
Fabian, Walter Julius	S.C.	Faulkner, Ayn Arthur	Md.
Fabian, Helen Margaret	Conn.		
Fabian, Mary Alice	D.C.	B.S. 1941, M.S. 1942, Carnegie	
Fabian, Helen Avel	Va.	Institute of Technology	
B.S. 1941, U.C.L. 1942, University of	Conn.	Fabian, Clara Mildred	D.C.
California		Fabian, Clara	Pa.
Fabian, Dorothy		B.S. 1941, M.S. in Ed. 1941	
Fabian, Robert J.	Iowa	M.S. in Chem. 1941, University	
Fabian, Robert James	D.C.	of Pennsylvania	
Fabian, Elsie Pauline	Iowa	Fabian, Louis	Va.
Fabian, Elsie Pauline	D.C.	B.S. 1941, The George Washington	
Fabian, Elsie Pauline	D.C.	University	
A.B. 1940, The George Washington		Fabian, Robert A.	Md.
University		B.S. 1941, Johns Hopkins University	
Fabian, Virginia Anne Frances	Ill.	A.M. 1941, The George Washington	
Fabian, Lee		University	
B.M. 1941, University of	N.Y.	Fabian, Robert B.	Md.
Rochester		B.S. 1941, Johns Hopkins University	
Fabian, Donald R. Jr.	D.C.	A.M. 1941, The George Washington	
Fabian, Bruce Morris	Vermont	University	
Fabian, Mary Charles	Va.	Fabian, Sid	D.C.
A.B. 1941, The George Washington		Fabian, Sydney	Pa.
University		Fabian, Ayn Luciel	Neb.
Faber, Louis I. Jr.	Ill.	Fabian, David	D.C.
Faber, Ida	Conn.	B.S. 1941, University of New Hamp-	
Faber, Elizabeth March	Mass.	shire	
A.B. 1942, Wesley College		Fabian, Rudolph H.	N.Y.
Fabian, Robert Knapp	W.Va.	Fabian, Lucile Luther	Va.
B.S. 1941, Ohio University		B.S. 1941, Mary Washington	
Fabian, Kathleen Margaret	D.C.	College	
Fabian, Betty A.	D.C.	Fabian, De Witt Christian	Va.
Fabian, Robert	D.C.	Fabian, David Edwin	Va.
A.B. 1942, Brooklyn College	N.Y.	Fabian, Ruth Elna	Mass.
Fabian, Evelyn Weiner	N.Y.	Fabian, Richard Lee	Iowa
B.S. 1942, Northwestern University	Ill.	Fabian, Jack	N.Y.
M.B.A. 1941, Harvard University		A.B. 1942, Brooklyn College	
Fabian, Clara Louise		Fabian, Edith	D.C.
Fabian, Albert Rountree	Va.	Fabian, Helen Marjorie	Iowa
Fabian, Norman Ray	Md.	Fabian, Len Stanley	Md.
Fabian, Diana Reynolds	Conn.	Fabian, Louise	Md.
Fabian, Knut E.	Conn.	Fabian, Marie Louise	D.C.
Fabian, Lorraine M. Ber	Conn.	Fabian, Marie Louise	D.C.
Fabian, Ope Gordon, Jr.	D.C.	Fabian, Thomas Andrew	D.C.
Fabian, John Clifford	Va.	Fabian, John Horvath	Pa.
A.B. 1942, University of Oregon	D.C.	Fabian, Robert Terrell	D.C.
Fabian, John Joseph	Mass.	Fabian, Robert Calvin, Jr.	D.C.
Fabian, John Robert	D.C.	B.S. 1941, University of Pennsylvania	D.C.
Fabian, Mary Peter	D.C.	Fabian, Theodore	N.Y.
Fabian, Mary Ruth	D.C.	Fabian, John R.	D.C.
Fabian, Mary Ruth	Mass.	Fabian, John R.	Pa.
Fabian, Mary Ruth	N.Y.	Fabian, William Palmer	N.Y.
Fabian, Mary Ruth	Md.	Fabian, David	D.C.
Fabian, Mary Ruth	Ill.	B.S. 1941, College of the City of	
Fabian, Mary Ruth	D.C.	New York	
Fabian, Mary Ruth	D.C.	M.S. 1941, New York University	
Fabian, Mary Ruth	D.C.	Fabian, Andrew Henry	D.C.





Foster, Mary Cruise	Ala	French, Jeanne Adrienne	Va
Foster, K. Goldena	Mo	Fried, John Martin	D.C.
Foster, Imogene May	Mo	B.S. 1941, Duke University	
Foster, Charles M.	D.C.	Fried, Robert Russell	D.C.
AB 1929, University of Wisconsin		Fried, Dale Henry	Iowa
Foster, Dorothy Hart	Md	Fried, John Norman	Md
Foster, Julia E. Ann	D.C.	Fried, Virginia	Tex
LL.B. 1923, Duquesne University		B.S. 1926, University of Kansas	
Foster, Robert Ray	Tex	Frey, Mary Mabel	D.C.
Foster, Saloe Hart	Md	Frey, Anna Ann	D.C.
Foste, Thomas Delos	Wa	Fried, Catherine Abida	Iowa
AB 1941, University of Wisconsin		Fried, Margaret Angelina	D.C.
Fowles, Laura	Md	Friedlander, Harold	N.Y.
Fowler, David Cleonis	La	B.S. 1934, College of the City of New York	
B.S. 1941, Louisiana Polytechnic Institute		A.M. 1939, The George Washington University	
Fowler, Olga Leanne	D.C.	Fried, Mabel Alice	D.C.
Fowler, Marion Stephenson	SC	Friedman, Catherine Barbara	N.Y.
B.S. 1932, The Citadel		Friedman, Gabriel	D.C.
Fowler, Smerleigh Glad	D.C.	Friedman, Gertrude	D.C.
Fowler, Thomas Alec	D.C.	Friedman, Leo	N.Y.
For, George Edmund	Ill	B.S. 1941, The George Washington University	
B.S. 1938, East Tennessee State Teachers College		Friedman, Seymour Friedrich	N.Y.
For, Harvey Irvin		Friedrich, Frederick A.	Ohio
For, Louella	D.C.	AB 1941, Youngstown College	
For, Mary Catherine	D.C.	Fried, Bertha	N.Y.
France, James Maurice	Md	B.S. & Ed. 1941, New York Uni- versity	
Franklin, Hugh MacNash, Jr.	D.C.	Fries, Louise Vay	Pa
France, James Carrington	Md	Fries, Mary Gertrude	Wash.
AB 1941, University of Alabama	Ala	Fries, William Beverly	D.C.
Friedke, Alma		Fries, Margaret Marie	N.Y.
Fried, Jacob Louis	D.C.	B.S. & Ed. 1941, New York Uni- versity	
B.S. 1942, Northwestern University		Fries, Kent Burnett	Va
Franklin, Florida Noel	D.C.	Fries, George Edward	Ill
AB 1942, The George Washington University		B.S. & F.E. 1949, Illinois Institute of Technology	
Franklin, Joseph John	Wash.	Fries, Jean Marie	D.C.
Franklin, Joseph D.	D.C.	AB 1941, Ohio Wesleyan University	
B.S. 1948, University of Maryland		Fries, Mar. Jean	Mo
Frazier, Andrew, Jr.	D.C.	Fries, Helen Kingsley	N.Y.
B.S. in M.E. 1924, St. Andrew's University (Scotland)		Fries, Helen M.	N.Y.
AM 1926, The George Washington University		Fries, Joseph Nathan	D.C.
Fraschetti, Edoardo Rafael	PR	Fries, William George	N.I.
Fraschetti, John Joseph		Fries, Robert Romaine	N.Y.
Frazier, Elizabeth I.	Calif.	Fries, Charles Horst	D.C.
Frazier, David Benjamin		B.S. 1941, The George Washington University	
Frazier, David Elizabeth	Ill	Frost, Helen Jean	D.C.
Frazier, Esther Stromstrom	D.C.	AB 1932, A.M. 1934, The George Washington University	
Frazier, Pascal Wiley	Ill	Frost, Albert Paul	N.I.
Friedrich, G. William	D.C.	Frost, Ann	Pa
B.S. in F.E. 1949, Purdue University		Frost, Douglas Raymond	Calif.
Friedrich, Lowell William		AB 1948, M.B.A. 1949, Stanford University	
Friedrich, Mark Eugene	Calif.	Frost, George Adler	D.C.
Friedrich, R. Lee Everett		B.S. 1944, Iowa State College	
Friedrich, Richard Richard		A.M. 1949, State University of Iowa	
LL.B. 1932, University of Minnesota		Frost, Raymond Marie	D.C.
Friedman, Nathan	N.Y.	Frost, Robert Henson	D.C.
Friedman, Martin Elizabeth		Frost, Taniel Fred	Ill
AB 1949, The George Washington University		AB 1946, University of Illinois	
Friedrich, Charles Earl	I.C.	M.B.A. 1941, New York University	
Friedman, Charles Allen, Jr.	Md	Frost, Helen June	Mo
Friedman, Marion Virginia		Frost, Anne Catherine	D.C.
Friedman, Mary Eleanor	Ill	Frost, Leonard Alice	D.C.
Friedman, Orville Estmer, Jr.	N.Y.	Frost, Margaret Virginia	Tex
Frew, Barry Sullivan	Ill	Fundaburk, Emma Lila	Ala
Friedel, Leonard	Calif.		
B.E.E. 1918, College of the City of New York	D.C.		

Furbershaw, Olga Selma	Md.	Garlock, Kathleen	D.C.
A.B. 1940, University of Maryland		Garnet, Adelaide Roseborough	Pa.
Furchtgott, Ruth Elizabeth	D.C.	Garnet, Isaac Milton	N.Y.
Furcolow, Helen Jane	D.C.	Garr, Thomas Plancheth	N.Y.
Furman, Miriam Jagers	Md.	Garren, Margaret Betty	D.C.
Furman, Murray	D.C.	Garrigan, Myles Robert	D.C.
Furness, George Abbott	N.Y.	Garrison, Patricia Lenore	N.Y.
A.B. 1918, LL.B. 1921, Harvard University		Gartley, Mary Margaret	Pa.
Fusfeld, Daniel Roland	D.C.	Gartley, Susan Kaufman	Pa.
A.B. 1942, The George Washington University		Gatta, Baldwin Lane	D.C.
Futrovsky, Charles	D.C.	Gawkins, Charles Lynwood	N.Y.
		Gaw, Jane	
		Gastaldo, Joseph Frank	D.C.
		B.S. 1942, New York University	
		Gastel, Mary Hoskins	
		A.B. 1932, The George Washington University	
		Gatell, Mercedes Eladia	D.C.
		LL.D. 1941, University of Havana	
		Gates, Franklin Young, Jr.	W.Va.
		Gibbs, S. M. Robert James	
		Gee, Edwin Arthur	
		B.S. 1941, The George Washington University	
		Gee, George Leonard, Jr.	Pa.
		Gee, Raymond Edward	Pa.
		Gee, Anna Adaline	Pa.
		Geeke, Ruth E.	Pa.
		Geger, Jason	Pa.
		A.B. 1943, The George Washington University	
		Geger, John H.	Pa.
		A.B. 1928, The George Washington University	
		Geiger, Ruth Sylvia	Pa.
		Geilfuss, John C.	Pa.
		A.B. 1935, Williams College	
		LL.B. 1938, Harvard University	
		Gellman, Anna	N.Y.
		Gemunder, George Francis	N.Y.
		Genderson, Sylvia	D.C.
		Genitis, Eldon	Ill.
		A.B. 1934, A.M. 1940, Northwestern University	
		Genna, Joseph	N.Y.
		Gentner, Edmund Frederick	Calif.
		B.S. 1932, University of California	
		Gentry, Bernard Wilson	Tenn.
		Gentry, Eulise Oliver	D.C.
		Gentry, Robert Cecil	Ky.
		B.S. 1917, Murray State Teachers College	
		George, Benedict Joseph	D.C.
		A.B. 1941, The George Washington University	
		Gerz, Louis	Pa.
		Gerz, Henry Rusty	Pa.
		B.S. in M.E. 1929, Purdue University	
		George, William C.	Pa.
		Geran, Robert Kinney	Pa.
		Gerling, George Fernand	Pa.
		A.B. 1928, University of Wisconsin	
		German, Frances Eleanor	Pa.
		Gernan, William Franklin	Pa.
		B.S. 1941, Georgetown University	
		Gierstein, Stanley Lillian	Pa.
		Giesman, Charles D.	Pa.
		Gerton, Myron, Jr.	Pa.
		Gessford, Margery	Pa.
		Gettner, Dorothy Ellen	Pa.
		Getter, Frank Harry	Pa.
		Ghavam, Ali Mohammed	Pa.
		Gibbins, Diana Scott	Pa.
		Gibbons, Florence Katherine	Pa.
			Pa.



Gibbs, Andrew Harris A.B. 1939, The George Washington University	D.C.	Goad, Lowell Austin Gobson, Mary Ann A.B. 1942, University of Illinois	Calif. Ill.
Gibbs, Margery Madeline Gibbs, Marie Elizabeth Gibbs, Richard DeArmond Gibson, Donald Clement B.S. 1937, Georgetown University	Neb. Pa. Va. Md.	Gochman, Donald Ray B.S. 1941, State Teachers College (West Chester, Pa.)	Pa.
Gibson, Mary L. Gurnea Gibson, Guy M. Gibson, Magdalen Fleet Gibson, Mary A. Gienau, Melvin Milton Gifford, Lois May Gifford, Yale Wesley Gilbert, Howard I. A.B. 1940, Brooklyn College	Minn. Tex. Tex. D.C. D.C. D.C. Wyo. Kans. N.Y.	Goda, Rena A.B. 1934, The George Washington University	D.C.
Gilbert, Stanley Osmund Gilchrist, Wayne Richard Gildehaus, Mary Frances Gildenstein, Miriam Gilchrist, Estelle Marguerite A.B. 1941, The George Washington University	Wis. Md. Md. D.C. Md.	Godbald, Alton Landy B.S. 1940, Mississippi State College Goding, Maurice Wilfred A.B. 1933, Yankton College Gonsky, Marie C. Gonsky, Louise Helma Gottlieb, Charles Gottman, Louis Albert Gokey, Franklin Charles B.S. 1942, Rensselaer Polytechnic Institute	Miss. Alaska Mo. D.C. D.C. N.J. Ind. R.I.
Gillespie, Carol Nadina Gillespie, Helen Ruth Gillespie, Mary Abbie B.S. 1929, A.M. 1933, George Peabody College for Teachers	D.C. Va. Tenn.	Gold, Sylvia Shirley Gold, William Goldberg, Abraham Goldberg, Arthur Norman Goldberg, Betty Goldberg, Charlotte Rose Goldberg, Edward Goldberg, Eugene Albert Goldberg, Lawrence L. B.Chem.E. 1940, College of the City of New York	D.C. D.C. N.Y. D.C. N.J. D.C. Fla. D.C. N.Y.
Gilliam, Homer Gills, Charlotte Jean Gills, Richard Paul Gills, Laura Marian Gilman, William Henry A.B. 1942, Harvard University Gilmore, Charles O. Giddard B.S. 1939, Washington and Lee University M.B.A. 1940, University of Pennsylvania	D.C. Ill. D.C. Va. D.C. D.C.	Goldberg, Martin Herbert Goldberg, Regina Loretta Goldberg, Robert Goldberg, Stella Goldman, James Lawrence Goldman, Marjorie Neuenberg A.B. 1941, Hunter College Goldman, Daniel B.S. 1942, College of the City of New York	D.C. D.C. N.Y. N.Y. D.C. D.C. D.C.
Gilmore, Kathleen Jane Ginsel, Frank Ginsel, Abraham Ginsel, Robert Arthur Gins, William Arthur Gins, Louis James Ginsberg, Kaye Keltner B.S. 1942, Wilson Teachers College Ginsburg, Leopold Ph.D. 1942, University of Detroit Gins, Helen Polina Gins, Barbara Danielson Natvig Gins, Louis Lee Gins, Stuart Ray Gins, Wellington Mortimer Glad, Earl Dale Gladitz, Herbert H. B.S. 1941, College of the City of New York	Neb. N.Y. D.C. Md. Ks. D.C. D.C. Md. D.C. D.C. D.C. D.C. D.C. N.Y.	Ginsberg, Melvin Milton Ginsburg, Sidney Samuel A.B. 1942, The George Washington University Ginsburg, Herman A.B. 1940, Harvard University Ginsburg, Lena Elizabeth Ginsburg, William George Ginsburg, Frank Ginsburg, Freda Ruth Ginsburg, Marcel A.B. 1928, University of Pennsylvania M.S. 1937, Temple University Ginsburg, Harold T. B.S. 1941, M.S. 1941, College of the City of New York	D.C. D.C. D.C. Mass. D.C. Calif. N.Y. D.C. D.C. Minn. N.Y.
Glass, Isidore Glass, Antonette Adam Glass, Catherine Helen B.S. 1942, Ohio University Glaber, Irene Hayden Glaber, Martin Glaber, Sam Bernard Glaber, Scott Glaber, Joseph Lawrence Glaber, David Solomon Glaber, Ralph O. Glaber, David Lewis Glaber, Charles Barton Glaber, Sarah Elizabeth	N.Y. Pa. Md. Pa. Pa. Pa. Pa. Pa. Pa. Pa. Pa. Pa. Pa.	Ginsburg, Benjamin Harold A.B. 1942, University of Michigan Ginsburg, Leonard Maurice A.B. 1942, Brooklyn College Ginsburg, Louis Benjamin A.B. 1941, Brooklyn College Ginsburg, Martin H. Ginsburg, Michael Ginsburg, Norman Philip A.B. 1941, New York University A.M. 1942, The George Washington University Ginsburg, Samuel Ginsburg, Sanford William Ginsburg, Sara I.	N.J. N.Y. N.Y. N.Y. D.C. D.C. N.Y. N.Y. N.Y. N.Y. N.Y.



Goldstein, Sidney Emanuel	D.C.	Gran, Orris Arthur	Mrs.
Goldstein, Simon	D.C.	Granger, Mary	D.C.
Goldsworthy, Helen Cressey	Ill.	Gravick, Lawrence Abraham	N.Y.
Gollon, Frank Roseben	N.Y.	Grant, Seymour	Va.
B.S. 1933, C.E. 1934, College of the City of New York		Gravman, Barbara Marie	D.C.
Golway, Everett Arthur	Va.	A.B. 1942, Trinity College (Washington, D.C.)	Va.
B.S. 1931, Boston University		Grass, Hyman	
C.C.S. 1933, Harvard University		Graves, E. Boyd	
Gomez-Ruiz, Luis E.	Venezuela	A.B. 1932, A.M. 1935, College of William and Mary	
Gonzalez, Olga	N.J.	Graves, George Wallace	
Gonzalez, Rodolfo Manuel	Calif.	B.S. 1941, College of William and Mary	
A.B. 1942, University of California at Los Angeles		Graves, Richard S.	
Gooch, Olan Travis	Okla.	A.B. 1941, Miami University	
Good, Harriet Norma	D.C.	Grav, Phyllis Adelaide	
Goode, William Francis	Mass.	Gray, Irene Laura	
Goodenough, George Norman	D.C.	Grassie, Lorna	
Goodger, Irma Eloise	D.C.	Greaves, Howard Pendleton	
Goodhope, Doris Irene	Nebr.	B.S. 1942, University of Idaho	
Goodman, Clifford James	Ariz.	Grebelsky, Dorothy	
Goodman, Harold Leo	N.Y.	A.B. 1941, Hunter College	
A.B. 1938, Cornell University		Green, Bernice Helene	
Goodman, Janis M.	D.C.	Green, Elizabeth Ann	
Goodman, Rhoda Patsy	D.C.	A.B. 1942, The George Washington University	
Goodman, William Horsley	D.C.	Green, Henry Maynard	
Goodney, Dorothy Gertrude	Mass.	A.B. 1941, Hiram College	
Goodman, Charles Harold, Jr.	Calif.	Green, Morton Arnold	
Goodridge, Richard Samuel	D.C.	Green, Nathan	
Goodstein, Joseph Benjamin	Va.	Green, R. Scott	
Goodwin, Eleanor Jean	Md.	Green, Wallace W.	
Goodwin, Kathleen Ste. Jeanne	D.C.	B.S. 1942, University of Kansas	
Goodwin, Lenore Gloria	D.C.	Green, William Edward	
Goodman, Sidney Emerson	D.C.	A.B. 1941, University of Nebraska	
Gould, Louise Stewart	D.C.	Greenbank, Richard K.	
Gorder, Ruby Lee	D.C.	Greenbaum, Stewart Marvin	
Gordon, Frances Smiler	D.C.	Greenberg, Harold	
Gordon, Barbara Prentice	Md.	Greenberg, Harold Aaron	
Gordon, Bernard	D.C.	Greenberger, Helen G.	
Gordon, David Stuart	D.C.	Greene, Anthony	
A.B. 1941, The George Washington University		Greene, Dana Layman	
Gordon, Donald A.	N.Y.	Greene, Laura Leon	
A.M. 1942, Columbia University		B.S. 1943, Trinity College (Hartford, Conn.)	
Gordon, Francine	D.C.	Greene, M. C. Alexander	
Gordon, Marie Louise	N.D.	Greene, Samuel Nathan	
Gordon, Muriel	D.C.	Greene, Stella A.	
A.B. 1942, University of Maryland		Greene, Walter Anson	
Gordon, Ruth B.	Ark.	Greener, Ralph Charles	
Gotesky, Harry	N.Y.	Greenfield, Florence	
Gottlieb, Sidney William	N.Y.	Greenfield, Frank Pierce	
Gottlieb, Sylvia B.	N.Y.	Greenfield, Paul Morton	
A.B. 1942, Hunter College		Greenfield, Myron	
Gould, George Elkins	D.C.	B.S. 1940, College of the City of New York	
Gould, Janis A.	D.C.	Greenwood, Anne Burkhard	
Gould, Walter Raymond, Jr.	Va.	Greenwood, Walter Bart	
Goumas, Nicholas Peter	D.C.	Green, E. C. Hard	
Govan, H. Bradford	Ark.	Greene, R. M. F. Jr.	
Grabber, John LeRoy	Mich.	Grey, Basil Marie	
A.B. 1930, Kalamazoo College		Griest, Walter Staley	
Grady, Francis Raymond	Ill.	Griffith, Charles William, Jr.	
Grady, Jack Joseph	Ill.	Griffith, Dorothy Jean	
Grady, Norman Hendry	Ga.	Griffith, George Yvonne	
Grady, Stanford Robert	Mich.	Griffith, Alice Faye	
Graciel, George L. Jr.	N.Y.	Griffith, Elizabeth Dickerson	
Graham, Elizabeth L. Galle	Mass.	A.B. 1942, The George Washington University	
A.B. 1934, Wellesley College		Griffith, Muriel Hope	
Graham, Betty Ann	Va.	Griffith, Harriet Eleanor	
Graham, Clifford Thomas	N.Y.	Griffiths, Mary Cecelia	
B.M.E. 1911, M.S. 1935, Polytechnic Institute of Brooklyn		Griggs, Armand L.	
Graham, James W.	D.C.		
Graham, Joseph Allen	Va.		
Gramlich, Charles Edward	D.C.		

Griggs, Lorraine	D.C.	Gump, Hazel P.	N.C.
Grigley, Marianne	Va.	A.B. 1933, Woman's College of the	
Grim, Edith Tupper	N.Y.	University of North Carolina	
A.B. 1942, Brooklyn College		Gunderson, Gladys Eleanor	D.C.
Grike, Joseph Robert	Va.	Gund, Ralph Sherman	Utah
Grike, Frances Lyster	D.C.	Gundlach, John Emmett	Utah
Grunberg, John Charles	D.C.	Gundlach, Verma	D.C.
B.S. in C.E. 1934, Manhattan College		Gustafson, Isabel Warren	Ill.
Grimes, David Damant	D.C.	Gustafson, William Joseph, Jr.	Mass.
Grimes, George Edward	D.C.	Gustafson, John August	Mich.
Grimmett, Forrest Lee	Ark.	Gustafson, David William	Iowa
B.S. in E.E. 1934, University of		B.C.S. 1941, Drake University	
Arkansas		Gray, Jean Frances	D.C.
Grinwald, Gordon B.	Kana.	Gray, Elsie Marie	Pa.
Grinner, Webster Jefferson	D.C.		
Grinner, Frank Charles	D.C.	H	
B.S. in M.E. 1924, Polytechnic In-		Habib, Edward T.	Pa.
stitute of Brooklyn		B.S. in Ed. 1929, State Teachers	
Grinwald, Estelle Herbert	Md.	College (Kutztown, Pa.)	
Grinwald, R. Harold Leon	D.C.	Hackard, Barbara Angela	Md.
Grinwald, Richard Whitmore	Md.	Hagerty, Virginia Lee	D.C.
A.B. 1929, Yale University		Hagerty, Gertrude Martha	Tex.
Grize, Rose		Hagstad, Leona Henry	Iowa
Groat, Barbara Helen	D.C.	A.B. 1928, Washington University	
Grober, Doris Alice	Ohio	Hagstr, Joseph A.	Conn.
Groff, Sara Louise	D.C.	Hahn, Lewis Philip	Ohio
Groff, David Arthur A.	Pa.	B.S. 1925, Miami University	
Groff, Robert Paul	Ill.	Hahn, Maurice William	Ill.
Groff, Anne Josephine	Ill.	B.S. 1929, Northwestern University	
A.B. 1928, Mount Union College of		Hahn, Theodore Paul	Kan.
the Sacred Heart		Hailey, Charles M.	Va.
Grogan, Charles Henry	Va.	Hains, Mary Jackson	D.C.
B.S. 1940, The George Washington		Hall, Josephine	Tex.
University		Hall, William Warren, Jr.	Tex.
Grombne, Isabelle Jacob	D.C.	Hall, Joseph Paul	Pa.
A.B. 1921, University of Buffalo		Hall, Robert Norman and Herbert	N.Y.
Grosch, Albert Greenbaum	D.C.	Hall, David Louis	D.C.
Grosch, William Nelson	Tex.	Hall, Joseph V.	D.C.
Grosch, Joseph	N.Y.	A.B. 1929, The George Washington	
Gross, Margaret Katharine	D.C.	University	
Gross, Evelyn	Pa.	Haley, Louis Thomas, Jr.	Ark.
Gross, H. Gale	N.Y.	A.B. 1927, Agricultural and Mchan-	
Gross, Lester	N.Y.	ical College (Monticello, Ark.)	
A.B. 1929, Brooklyn College	D.C.	Haley, Morris Emerson	Va.
Gross, Louis Mildred	Nebr.	A.B. 1924, Trinity and Henry College	
Gross, Carmen Era	D.C.	Haley, Louis	D.C.
Gross, Helen	N.Y.	Haley, Joseph Marie	Wis.
Gross, Seymour	Pa.	Hale, Walter George	Conn.
Gross, Nina Hazel	Va.	Hale, Robert Rich	D.C.
Gross, Dorothy Allen	D.C.	Hale, Robert Ann	Pa.
A.B. 1922, Wellesley College		Hale, J. Louise	Pa.
Gross, Morris L.	Calif.	Hale, Eleanor Malvern	Mich.
Gross, Elsie	D.C.	Hale, Fred	Pa.
A.B. 1920, H.B. 1920, The George	Va.	Hale, Jack Robert	Nebr.
Washington University		A.B. 1929, University of Nebraska	
Gross, Jack Paul	Wis.	Hale, John Leonard, Jr.	Calif.
Gross, Nathaniel David	Va.	Hale, Joseph	D.C.
A.B. 1928, MS. 1936, Ohio State		A.B. 1925, Rollins College	
University		A.M. 1928, Grinnell College	
Gross, Lillian June	Mich.	Hale, Thomas Franklin	Tex.
Groszowsky, Stanley Benjamin	N.Y.	Hale, Mary Elizabeth	Kan.
Groszowsky, Ernest William	D.C.	Hale, Robert W.	Pa.
Grunder, Wayne Scott	Utah	Hale, Stanley Franklin	Va.
Gualter, Maria Gerald	N.Y.	B.S. 1926, Virginia Polytechnic	
Gualter, Mary Harriet	D.C.	Institute	
Gualter, John Edward	Pa.	Hall, Louis	Mass.
Gualter, Roscoe Simpson	Md.	Hall, William John	Pa.
Gellatly, Robert Earl	D.C.	Hall, Howard Anthony	Conn.
Gellatly, Paul Fox	Ill.	A.B. 1928, Yale University	
Gellatly, George Edward	D.C.	Hall, John Louise	N.Y.
Gummel, Edward Francis	Md.	Hall, Louis	Nebr.
		Hall, Katherine Winifred	Mass.
		Hamblin, Barbara	D.C.
		Hamblin, Helen Lois	D.C.

Hamblin, Jack Arthur	Wis	Harmon, Dorothy M	Pa
Hamblin, Margaret Stewart	D.C.	A.B. 1942, M.S. 1942, Columbia University	Pa
Hamblin, Helen Cassandra	Pa	Harmon, Ernest Emory	Pa
Hamblin, Henry J. N.	Calif	Harmon, George Oliver Jr	Pa
A.B. 1933, Aix-Marseille University		Harness, Charles Leonard	Pa
M.D. 1910, Marseille Medical School		B.S. 1942, The George Washington University	Pa
Hamblin, Lloyd W.	D.C.	Harness, Nell W	Pa
Hamblin, Paul Ken	Pa	A.B. 1937, Texas Christian University	Pa
B.S. 1942, Birmingham Southern College		Harper, Dorothy Jane	Pa
Hamblin, Robert Campbell	Pa	Harper, Douglas E.	Pa
Hamblin, William Hanch	Pa	Harper, Joseph Wallace	Pa
Hamber, D. H. R. J.	Pa	Harper, Leatrice Jay	Pa
Hamm, Rosetta Helenstreet	Pa	Harper, Dennis Cornelius	Pa
Hamm, Dorothy Anna	D.C.	Harper, Hugh Thompson	Pa
Hamm, Dorothy Ann	D.C.	B.S. 1941, University of Virginia	Pa
Hamm, George Everett Cecilia	D.C.	Harris, Barbara Beverly	Pa
Hamm, T. A. Haynes, Jr.	Ark	Harris, Ber Marie	Pa
Hamm, John R.	D.C.	Harris, Charles Adair	Pa
Hamm, Joseph Wendell	Pa	Harris, Elbert G.	Pa
Hamm, George Melvin	D.C.	Harris, Henschel	Pa
Hamm, Carlisle Jean	Pa	Harris, John N.	Pa
Hamm, Lucile	N.Y.	Harris, John Theodore	Pa
Hamm, Robert Beach	D.C.	B.S. 1938, Syracuse University	Pa
Hamm, Rosa R.	Pa	Harris, Kenneth L.	Pa
Hamm, Thomas Lester	D.C.	B.S. 1935, University of California	Pa
Hamm, Ann Carole	Pa	Harris, Laura Kay	Pa
Hamm, Marion M.	Pa	A.B. 1941, University of Cincinnati	Pa
Hamm, Rosa Barker	D.C.	B.S. 1942, Columbia University	Pa
Hamm, Ethel Theodore	Pa	Harris, Lester Franklin	Pa
Hamm, Paul Joseph	D.C.	Harris, Martha Frances	Pa
Hamm, James Edwards	D.C.	Harris, Nancy Field	Pa
Hamm, L. L. Mae	Pa	Harris, Pearl	Pa
Hamm, Elmer Jeanne	Pa	Harris, Robert Elmer III	Pa
Hamm, Margaret Anita	D.C.	Harris, Rose	Pa
Hamm, Betty B.	D.C.	Harris, Thomas Hill and	Pa
Hamm, Gerald Lee	Pa	B.S. 1942, The George Washington University	Pa
Hamm, M. Cecilia	N.Y.	Harris, William James, Jr.	Pa
Hamm, Margaret Carolina	D.C.	B.S. M.S. 1942, Purdue University	Pa
Hamm, Miss Jane	Pa	Harrison, Bernard Arnold	Pa
Hamm, Helen Ruth	Pa	Harrison, William R. Herts	Pa
Hamm, Ralph Emil	N.Y.	Harrison, Mary Louise	Pa
A.B. 1942, Harvard University		Harrison, Ruth Leah	Pa
M.B.A. 1942, Harvard University		M.B. 1941, Greenfield College	Pa
Hamm, Barbara Helen	Pa	Harrison, Sarah Ann	Pa
Hamm, Leonard Copeland	Pa	Harrison, Thomas Fletcher	Pa
Hamm, Jay Richard, Jr.	Pa	Murray, Don Rogers	Pa
A.B. 1942, M.B.A. 1942, Harvard University		Hart, Eugene Boyd	Pa
Hamm, Thelma Lee	Pa	A.B. 1928, Bridgewater College	Pa
Hamm, William D.	Pa	M.S. 1931, Virginia Polytechnic Institute	Pa
B.S. & M.E. 1941, Purdue University		Hart, Claude	Pa
Hamm, Geraldine Marie	Pa	A.M. 1935, University of Illinois	Pa
Hapanowicz, Thaddeus T.	Pa	Hart, Claude	Pa
Harasyko, Walter	Pa	B.S. in Ed. 1938, M.S. in Ed. 1942, University of Idaho	Pa
Harbert, Joseph Harold	Pa	Hart, Helen Visions	Pa
Harbicht, Polya Kovalea	Pa	A.B. 1942, Western Washington College	Pa
Harbold, Lillian Catherine	Pa	Hart, Gerald Arnold	Pa
Harbour, Christine	Pa	Hart, John Maxwell	Pa
Harbison, James West	Pa	A.B. 1941, University of Washington	Pa
Hardesty, Thomas Knox C.	Pa	Hart, Lawrence	Pa
Hardesty, Dorothy M.	Pa	B.S. 1941, New York University	Pa
Hardesty, Evelyn Louise	Pa	Hartman, Betty Eldridge	Pa
Hardy, Frank McNairy	Pa	Hartman, Vera L.	Pa
Hardy, William Hendricks	Pa	Hartman, George W.	Pa
B.S. 1910, University of Washington		Hartman, Frederick Burgess	Pa
Hardy, Louis	Pa	Hartman, Elizabeth	Pa
Hardy, Glenn Fred	Pa	A.B. 1937, The George Washington University	Pa
Hardy, William D. Drell	Pa	Hartunian, Norair	Pa
Harley, Margaret Elizabeth	Pa	Harvey, Dorothy Lucile	Pa
Harley, Rose Madeline	Pa		Pa
Harloff, William Carroll	Pa		Pa



Harvey, Eula Mae A.B. 1924, University of Arizona	Ariz.	Healy, Jeremiah Joseph, Jr. B.S. 1941, College of the Holy Cross	Mass
Harvey, Mary Ellen	Md.	Healy, John Valentine	D.C.
Harvey, Robert W.	Md.	Heard, Margaret Marie	D.C.
Harvey, Ruth Elizabeth	Maine	Hearne, Maurice Joseph	Ill.
Hasson, Paul Adrian	Iowa	Heath, Dorothy Grace	D.C.
Hassell, Margaret Helen	Md.	Heath, Emily Persons	S.C.
Hassell, Norma Beatrice	Md.	Heath, Iva Earl	Tex.
Hastum, Arlene Helen	Va.	Heaton, Jane Frances	D.C.
Hastwanger, Elizabeth Marie	N.I.	Heaton, Catherine Virginia	D.C.
Hassell, Ann Clark	Md.	Hewitt, L. C.	Pa.
Hassen, Adeline Marion	Mass.	Hewitt, George V.	Calif.
Hastings, George Warren	Mass.	Hewitt, Mary Ann	N.Y.
Hastings, William Charles, Jr. B.S. 1942, University of Nebraska	Nebr.	Hewitt, Thomas Alexander B.S. 1941, University of Michigan	Va.
Hatch, Robert Seymour A.B. 1929, Ohio University	Ohio	Hedler, Karolina J.	D.C.
LL.B. 1931, Ohio State University		Hedquist, E. Linea	Md.
Hatwell, Joseph Albert B.S. in E.E. 1941, University of Pennsylvania	Pa.	Hedger, Mary Ann	Ill.
Hatfield, Mary Agnes	D.C.	Hedger, Thomas Alexander	N.I.
Hatfield, Norma Stott A.B. 1940, The George Washington University	D.C.	Heffernan, Bernard Joseph	N.J.
Hathaway, Edwin Oliver	N.H.	Heffner, Edward Paul	N.Y.
Hatch, Martha Irene	Va.	Hefner, L. Marie	D.C.
Hart, Della Mae	D.C.	Hege, Edwin Collins	D.C.
Hartney, Lila Paul	Mass.	Hegg, Freda	M.
Hart, David Corbett	D.C.	Heim, Marion Ruth	M.
Hasson, David Martin	Va.	Heinbaugh, Charles Elmer, Jr.	D.C.
Hasser, Evelyn Mary	D.C.	Heindl, Raymond August	D.C.
Hasser, Marie Rita	D.C.	Heine, Thomas Henry	D.C.
Hawes, James Edwin	Md.	Heineman, Thelma Sally	W.Va.
Hawk, Robert M.	Okl.	Heiner, George Edward	W.Va.
Hawkins, Ann Frederic	W.Va.	A.B. 1942, Marshall College	Calif.
Hawkins, B. H. H. H. H.	Va.	Heines, Laurence Osley, Jr. B.S. 1924, Dartmouth College	N.Y.
Hawley, Clara Fletcher	Md.	Heinfeld, Bernice	Ohio
Hawley, Charles B. H. H. H.	Md.	Heiser, Will Maynard A.B. 1938, Oberlin College	D.C.
Hawley, Robert William	Minn.	Heiss, Helen Elizabeth	D.C.
Hawley, Myra Louise	Vt.	Hejno, Francis John	Ill.
Hawley, Ruth and Green	Ga.	Helander, Hollis Irene	Nebr.
Hawley, Richard Irving	Md.	Held, Sidney Nelson B.S. 1942, University of Nebraska	Va.
Hawley, William C.	Tex.	Held, Werner B.S. 1938, Worcester Polytechnic Institute	D.C.
Hawley, Pauline Iola	D.C.	Helfrich, William Goll	Pa.
Hawley, Jean Orsine B.S. in E.E. 1927, University of Pennsylvania	N.J.	Heller, Kenneth Reichert	N.Y.
Hayden, Everett Penn A.B. 1928, University of Louisville	Md.	Heller, Robert Lessick B.S. 1932, Bowdoin College	D.C.
Hays, Dorothy Elizabeth	D.C.	Heller, Virginia	D.C.
Hays, Genevieve Awatha	Okl.	Helm, James Thomas, Jr. B.S. 1933, Mary Washington College	D.C.
Hays, Ruth Jeanette	Va.	Ed.M. 1940, Duke University	Minn.
Hays, Tom Moore, Jr. A.B. 1937, I.L.B. 1939, Tulane University of Louisiana	La.	Helm, Ruth Ellen B.S. 1940, University of Minnesota	Pa.
Hayes, Martha Frances	Ky.	Helsel, William Gordon B.S. 1932, Dickinson College	Md.
Hays, Ernest John	Wash.	Helm, M. E. B.S. 1927, Temple University	Ark.
Hays, Raymond LeRoy	D.C.	A.M. 1942, The George Washington University	Miss.
Haward, J. Paul	Maine	Helm, Katherine	D.C.
Haward, Muellet	D.C.	Helm, Albert A.B. 1941, The George Washington University	Fla.
LeRoy Paul Lake	Iowa	Henderson, Anna T. S. H.	Tex.
Heberlin, Betty L.	N.C.	Henderson, Levee Lillian	D.C.
Heberlin, Dorothy Bernice	D.C.	Henderson, Herbert Charles	D.C.
Head, James Kelvin	N.C.	Henderson, Russell Stewart	La.
Headrick, Thomas W.	D.C.	Hendrick, James Wesley	
Healy, Ann Elizabeth A.B. 1937, Trinity College (Washington, D.C.)	D.C.		
M.S. 1939, Catholic University of America			
Healy, Arthur Paul B.S. 1942, Seton Hall College	N.J.		



Henry, Franklin D. B.S. 1932, Utah State Agricultural College	Utah	Hickey, Mary Elaine	Mo.
Henderson, Jack Vincent	N.C.	Hickley, Thomas James	D.C.
Hendrix, Arthur Keith	D.C.	Hickman, Doris Elizabeth	Ariz.
Hennigan, Harold H. B.S. in Ed. 1926, Southwest Missouri State Teachers College A.M. 1928, University of Missouri	Mo.	Hicks, John Ridge	Wash.
Herrick, Byron I. A.B. 1934, Coe College	Iowa	Hicks, Madara Jane	Ohio
Hermes, Gertrude Irene	D.C.	Hicks, Thomas Flournoy	D.C.
Hernon, Daniel Zane	D.C.	A.B. 1936, Hampden-Sydney College	Vt.
Herrington, Edward James	D.C.	Hicks, William Eugene	Tex.
Herrington, Gertrude Edith	Pa.	Higbee, Wilbur Enoch	N.J.
Herrington, Mary Lee	Pa.	Higby, Ira Kirk, Jr.	Fla.
Herrington, Essie Audrey A.B. 1929, University of Oregon	Oreg.	Higgins, Catherine Frances	Tex.
Henry, Donald Lee	Md.	A.B. 1940, Wheaton College (Mass.)	Va.
Henry, John K.	Va.	Higgins, Helen	Tex.
Henry, Jack W. Kenen, Jr.	D.C.	Higgins, Iris	Va.
Henry, Mary Elise	Va.	Higginson, Helen Rose	N.Y.
Hensley, Mary Jane Ruth	D.C.	Hizier, Edna H.	Pa.
Henson, Edwin North	D.C.	Hildebrand, Pauline Leona B.S. 1931, Ed.M. 1936, University of Pittsburgh	Va.
Henson, Fred De Velle	D.C.	Hildebrand, Roy Jacob	D.C.
Hepner, Gerhardt Irving	D.C.	A.B. 1937, Bridgewater College	D.C.
Herdman, Nathan	N.Y.	Hildreth, Arthur Lander	Pa.
Herdman, Dorothy Claire	D.C.	Hill, Alfred M. B.S. 1926, Rhode Island State College	Pa.
Herduth, Charles Elizabeth	D.C.	Hill, Charles B.	Pa.
Herduth, Hildegarde Bernette	Va.	Hill, Edward Crane	Pa.
Herricks, Francis Lewis	Pa.	Hill, Flora Lee	Pa.
Herrman, Jack Robert	N.Y.	Hill, Lester Maxwell	Pa.
Herrman, Stanley	D.C.	Hill, Mary Martin	Pa.
Herrman, Frank Jefferson	D.C.	Hilmy, Frances Lee	Pa.
Herrman, Rosetta Q.	D.C.	Hilmy, Robert Courtney	Pa.
Herrman, Ruth Jane	Pa.	Hilmy, Arnold	Pa.
Herrman, Elizabeth Anne	Va.	Hill, Leon Clarence	Pa.
Herr, Mildred Ruth	D.C.	Hilton, Emma Catherine	Pa.
Herrick, Emma Frances, Jr.	W.Va.	Hilmy, Lewis	Pa.
Herrington, Donald Dewar	Mass.	Hiltz, Arthur Harris	Pa.
Herrington, Alberta Louise	W.Va.	Hiltz, Henry F. B.S. in Chem. E. 1938, Cooper Union B.S. in Chem. E. 1937, New York University	Pa.
Herron, Paul Martin	D.C.	Hipple, Ruth Melent	Pa.
Hersch, Mary	N.Y.	Hipskind, Donald F.	N.M.
A.B. 1912, Hunter College	Tex.	Hirakawa, Anna T.	N.J.
Herschbach, John Louis	D.C.	Hirsch, Chester L. A.B. 1941, Rutgers University A.M. 1942, Columbia University	N.Y.
Hertzman, Liliane	D.C.	Hirschman, Max Abraham B.S. in S.S. 1938, M.S. in Ed. 1940, College of the City of New York	Fla.
Henderson, Philip Ingram	Pa.	Hitt, Moultrie LL.B. 1925, The George Washington University	Kans.
Hendler, Mary Ronda	Iowa	Hixson, Alice Domino	N.J.
Hendricks, Garold Franklin	Pa.	Hinatow, John	Mass.
Hess, Rita Rose	D.C.	Hobelman, Charles George B.S. in C.E. 1932, Rutgers University	Mass.
Hess, Robert Campbell, Jr.	Md.	Hoberman, Joel Bernard A.B. 1940, The George Washington University	D.C.
Hess, Walter Eugene A.B. 1924, Gettysburg College A.M. 1930, University of Wisconsin	N.Y.	Hobson, Dorothy Ellen	Del.
Hesselbach, Marie Lueblein A.B. 1916, Hunter College	N.Y.	Hobson, William Thomas	N.Y.
Hessing, Harold	N.Y.	Hochman, Stanley	Ill.
Hessman, John Joseph A.B. 1935, Harvard University	D.C.	Hockfield, Robert B.S. 1943, University of Illinois	D.C.
Hester, Betty Jane	Pa.	Hodge, Douglas Preston	D.C.
Hester, James Gordon A.B. 1945, Southwest Texas State Teachers College	Tex.	Hodge, Harry Morgan	Vt.
Hester, Jerome D.	Pa.	Hodges, Malcolm Erasmus	N.C.
Hester, Ruth Margaret	Tex.	Hodgin, Elizabeth Berwerth	D.C.
Hester, Virginia Katherine	Tex.	Hodgkins, George Wilson A.B. 1915, A.M. 1916, The George Washington University	Neb.
Hetzler, William Joseph	D.C.	Hodtwalker, Mildred Marie	
Hewes, Laurence Hiley, Jr. B.S. 1924, Dartmouth College	Calif.		
Heyl, Mary Jane A.B. 1942, Columbia University	D.C.		
Hibbert, Jane Sudduth	Ariz.		
Hichborn, Katherine	D.C.		
Hickerson, Ella Mason	Md.		

# Students Registered

387

Holter, William Henry	Iowa	Holmes, George Robert	N Y
Holker, Lewis R. Moore	Pa	Holmes, E. E. 1942, Roosevelt Polytechnic Institute	
Hollman, Carl Joseph	Pa	Holmes, Benjamin Thomas	D C
B.S. 1942, Catholic University of America		Holmes, Thomas August	S D
Hollman, Charles Eugene	D C	A.B. 1942, Assumption College	
Hollman, Charles Nye	Pa	Holmes, Mary Catherine	Pa
A.B. 1939, Northwestern University		Holmes, Rene Armand	D C
Hollman, Helen W. Richmond	Mass	Holmes, Robert L.	N C
Hoffman, Miriam, Mae	D C	B.S. 1937, Appalachian State Teachers College	
Hoffman, Natalie P.	N Y	Holmes, Marie Line	D C
Hogan, Richard Franklin	Calif	Holt, Mary Ann Hunt	Md
Hogan, Douglas Lewis	N Y	Holmes, Anna Louise	D C
Hogan, Walter Thomas, Jr.	Ill	Holmes, Oliver Louis	Md
Hoggensen, Beatrice Mabel	Utah	B.S. 1937, Massachusetts Institute of Technology	
A.B. 1933, University of Utah		Holmes, Ray Henry	D C
Hoggensen, Randal Alma	Utah	Holmes, Virginia Lucy	D C
A.B. 1934, University of Utah		Holmes, Charles R. 1937	Wyo
Hogue, William Marston	D C	Holmes, Frederick Leonard	Pa
Holmes, Frank	Md	Holmes, George Robert	D C
Holaday, Allan Gibson	Ind	Holmes, George W. Jr.	D C
A.B. 1938, Miami University		A.B. 1941, The George Washington University	
A.M. 1939, Cornell University		Holmes, George Phillips	Del
Holben, Ralph Erdman	N H	A.B. 1937, Yale University	
A.B. 1939, Dartmouth College		Holmes, Mary Yvonne	D C
A.M. 1940, Columbia University		Holmes, Marie Vincent	Pa
Holcomb, Frederick Morse, Jr.	D C	A.B. 1941, Saint Ignace University	
Holcomb, Marietta	Neb	Holmes, Mary N.	Md
Holcombe, William Collis	Ariz	B.S. 1934, Western Teachers College	
Holten, Elizabeth	N Y	Ph.D. 1938, University of Wisconsin	
Holmes, Maurice Kathryn	Tenn	Holmes, Robert Louis	D C
Holland, Bernad Jacqueline	Neb	Holmes, Robert J.	Mass
Holland, Donald Mar	D C	Holmes, Samuel Adams	Md
Holland, Roger Joseph	Calif	Holmes, Clifford Randolph, Jr.	D C
B.S. in Ed. 1942, South Georgia Teachers College		Holmes, Arthur	Va
Hollender, Milton Henry	N J	Holmes, C. Eugene	D C
A.B. 1939, New York University		Holmes, George Jerome	D C
Hollender, Sherman Schaller	Ohio	Holmes, Louise Emily	D C
A.B. 1941, Western Reserve University		Holmes, Mary Frances	D C
Hollenman, Leon	N Y	Holmes, Mary Ursula	D C
A.B. 1939, University of Rochester		Holmes, Eleanor E.	Wash
Holley, Max Vinson	D C	B.S. 1940, Alleghia College	Pa
B.S. 1939, The George Washington University		Holmes, Margaret Alice	Mass
Hollis, Jack McDougal	Md	Holmes, Roberta Bessie	Mass
Holles, Lawrence Peter	D C	A.B. 1947, Harvard University	
Holman, Margaret Anna	D C	Holmes, James H.	D C
Holmes, Doris Louise	D C	Holmes, Elizabeth May	Ill
Holmes, Robert Henry	Neb	Holmes, Basil F. 1938	Va
Holmes, Jerome Dalton	Ill	Holmes, John H.	W Va
Holm, Charles Henry	Iowa	Holmes, I. 1938	D C
Holm, Marian R.	Ill	Holmes, Morris I.	N Y
Holman, Elizabeth, Jeanne	Pa	B.S.S. 1947, College of the City of New York	
Holman, Genevieve	D C	Holmes, Sidney Harris	N Y
Ph.B. 1946, University of Chicago		Holmes, George Daniel, Jr.	Ill
Holmes, Isham Earl	Md	E.P.I. 1938, American Institute of Technology	
Holmes, Joel Grant, Jr.	D C	Holmes, Stuart Wilson	Fla
Holmes, Margaret A.	N Y	Holmes, Louise Louise	Conn
Holmes, Rita Jane	D C	Holmes, Harold	N Y
Holmes, Robert Reynolds	D C	Holmes, Angela Marie	Ind
Holmes, Hazel Augusta	Mass	Holmes, Francis Joseph	Mont
Holmes, Latta Maria	Ill	Holmes, John Henry	D C
Holmes, Anna A.	Kans	Holmes, Evelyn	Ala
Holst, Betty Jane	D C	A.B. 1946, Alabama College	
B.S. 1945, State Teachers College (Milwaukee, Wis.)		A.B. in L.S. 1948, Emory University	
Holt, Eugene L.	Wis	Honda, Florence Wanda	S D
B.S. 1949, State Teachers College (Milwaukee, Wis.)		Hoff, Clifford Garland	D C
Holt, Charles Wingate, Jr.	Md	Honda, Herbert John	Ill
Holt, John Dominis	T H	Hough, Mary Margaret	D C
Holzbeierlein, Jean Estelle	D C		





## 389

Ingers, Norval Owen	MI	Jackson, Lyle Geest	DC
Inglis, Olinia	Ala	Jackson, Eugene Augusta	DC
Ingram, Frances Baker	DC	Jackson, Mildred Harris	Ala
Ingram, Orville James	DC	Jackson, Robert Samuel	MI
Ingram, Robert Sumner	RI	Jackson, Henry William	DC
A.B. 1941, Williams College		Jackson, Louis Henry, Jr.	DC
Inklebarger, William Lederwinski	Ill	Jaffe, Arthur	DC
Innes, Miss Lee	Ill	A.B. 1940, University of	Ill
Intendanton, Paul Frank	DC	Jaffe, Florence	NY
Intrater, Rochelle	DC	A.B. 1941, Hunter College	NY
Intrater, Samuel	DC	Jaffe, Frances	NY
Iram, Ardeshir Behram, Jr.	DC	Jaffe, Louis S.	NY
Irey, Robert Blair	DC	B.S. 1934, Brooklyn College	NY
Irvine, Max A.	MI	A.M. 1934, Columbia University	NY
Irvine, William Gordon, Jr.	DC	Jaggers, Frank Young, Jr.	DC
Irvine, Mary Margaret	DC	B.S. 1939, Dickinson College	DC
Irvine, Merle Maurice	Ala	Jane, Paul Fred	DC
Irvine, Dawn Louise	DC	Jane, Ann Lawrence	DC
Ivans, Isadore	DC	A.B. 1941, The George Washington	DC
Ivans, Shirley	DC	University	
Ivans, Frances Evelyn	Pa	Jane, Ruth Reed	DC
Ivans, Hayden Edward	NY	A.B. 1941, Penn. State College	DC
Iverson, Russell Harold	DC	Jane, Frances Eugene	MI
Iverson, Samuel Jordan	DC	B.S. 1942, St. John's Hall College	NY
B.S. in C.E. 1922, Armour Institute	DC	Jane, Margaret Frances	DC
of Technology		Jane, Rosamund Walter	DC
Izenman, Miriam R.	Mass	A.B. 1942, The George Washington	DC
A.B. 1939, Brooklyn College	DC	University	
Iley, Cary T.	DC	Jannson, Philip	DC
A.B. 1942, Wofford College	DC	Jannson, Sylvia Rochester	DC
Israel, Raymond	DC	A.B. 1932, American University	DC
B.S. 1938, Wilson Teachers College	DC	B.S. 1936, Drexel Institute	DC
Isrell, Peter Roy	Calif	of Technology	
J		Jannson, Katherine Mae	DC
Jacarus, Hilda Joan	Calif	Jane, Ruth Anne	DC
Jackman, George Eugene	DC	Jane, Evelyn	NY
Jackson, Andrea	Ill	Jackson, Lee	DC
A.B. 1942, The George Washington		A.B. 1942, Ohio State University	
University		Jannson, Howard	NY
Jackson, Clayton Reed	W Va	Jane, Lois Edward	NY
A.B. 1939, Brigham Young University	Utah	Jane, S. Lucy	NY
Jackson, Evelyn Jane	DC	B.S. 1941, College of the City of	
Jackson, John Woodell	DC	New York	
Jackson, Kenneth Ray	DC	A.M. 1944, Columbia University	
Jackson, Margaret Wing	Ill	Jane, William Andrew	Mass
Jackson, Robert E.	Mass	Jane, Margaret Louise	Mass
Jackson, Thomas Avery	Ill	Jane, Mary Catherine	Pa
B.S. 1941, State Teachers College	Mo	A.B. 1938, Pennsylvania University	
(Mass.)		Jane, Robert Marion	Wash
Jackson, Willard Charles	NY	B.S. 1941, University of Washington	
B.S. in M.E. 1936, University of		Jane, Mary Benedict	Pa
Rockefeller		B.S. 1942, College of the City of	NY
Jach, Helen Hall	DC	New York	
A.B. 1926, The George Washington		Jasper, William S.	Ohio
University		A.B. 1941, Ohio University	
Jacob, Virginia Fernalde	MI	Jane, A. Anne Carson	Mass
B.S. 1930, Western Teachers College		B.S. 1942, Massachusetts Institute	
Jacob, Wilma Jane	DC	of Technology	
A.B. 1941, Duke University		Jane, Howard Samuel	DC
Jacob, Donald Wesley	Calif	Jane, Charles Lawrence	NY
A.B. 1931, Brooklyn College	MI	Jane, Norman J.	DC
MS 1938, The George Washington		Jane, William Douglas	DC
University		Jane, Virginia Lee	DC
Jacobs, Mary Katherine	DC	Jane, Jean Marie	DC
Jacobs, Pearl Violet	Pa	Jane, LeAnne Lee	NY
Jacobs, William Henry	DC	Jane, Martin Lee, Jr.	NY
Jacobsen, Lawrence	DC	Jane, Paul Robert	Iowa
B.S. in M.E. 1941, University of	W Va	Jane, Lillian Lillian	MI
Wisconsin		Jane, Lily E. Lillian	NC
Jacobsen, Eleanor Grace	DC	Jane, Margaret Mary Ida	NC
		Jennings, Anne Elizabeth	NC



Jennings, Ileen Estella	D.C.	Johnson, Victor Joseph	D.C.
Jennings, Herbert Frank	Mich.	B.S. in M.E. 1930, Tri-State College	D.C.
Jennings, Malon Lewis	W. Va.	Johnson, Virginia Jane	Va.
Jennings, Miriam	Tenn.	Johnson, William Henshiah	Va.
Jensen, Earl H.	D.C.	Johnson, Charles Arthur	D.C.
Jensen, Harold L.	D.C.	B.S.C. 1938, State University of Iowa	D.C.
B.S. 1922, Iowa State College of		Johnson, Fae Louise	D.C.
Agriculture and Mechanic Arts		Johnson, Francis Clair	Va.
Jensen, Helen Marie	N.Y.	Johnson, Lyle Tesson, Jr.	D.C.
Johnson, Janette Julia	Conn.	Johnson, Rose	D.C.
A.B. 1941, The George Washington		Johnson, Russell	
University		A.B. 1927, University of Texas	
Jensen, Neri Christine	Va.	M.B.A. 1930, Harvard University	
Jensen, Milton L.	Va.	L.D. 1937, LL.M. 1938, The George	
Jeter, William Tyree	Okla.	Washington University	N.Y.
Jett, William S.	Ky.	Johnson, Wesley Ames	N.Y.
L.L.B. 1926, University of Kentucky		Johnson, James Douglas	D.C.
Jett, Gerald Royal, Jr.	D.C.	Jett, John Charles	D.C.
Jett, Sylvia Rose	D.C.	Jones, Carl Thomas	Mo.
Jones, Thomas Carlos Federico	P.R.	Jones, Charles Benick	Mo.
Jones, Patricia William	Mo.	Jones, Carson	
B.S. 1942, St. Louis University		Jones, Dana Allen	
Jones, Beverly Fairfax	Va.	A.B. 1936, Trinity College	D.C.
Jones, Milton	D.C.	M.B.A. 1938, Harvard University	N.Y.
Jones, David Strand	D.C.	Jones, Denis Leanne	Mo.
Jones, A.O. Martha	D.C.	Jones, Edgar Meredith	Va.
Jones, Anna H.	D.C.	Jones, Leath B.	Va.
Jones, Albert Shelby	S.C.	Jones, Harry David	D.C.
B.S. 1936, University of South Carolina		Jones, Henry Lewis	D.C.
Jones, Arnold Milton	Ill.	Jones, James Wells	D.C.
P.A.B. 1928, University of Chicago		Jones, John Walter	
Johnson, Barbara Jane	Mont.	B.S. 1939, The George Washington	Univ.
Johnson, Beverly	Va.	University	D.C.
Johnson, Clark F.	S.D.	Jones, John Henry	
A.B. 1930, B.S. 1941, University of		Jones, Margaret Nelson	Ore.
South Dakota		P.A.B. 1934, University of Chicago	
Johnson, David Pierce	Ga.	Jones, Martha Elizabeth	D.C.
Johnson, Donald Arthur	W. Va.	B.S. 1932, University of Oregon	D.C.
Johnson, Donald William	Wash.	Jones, Mary Townsend	D.C.
Johnson, Doris Louise	N.M.	Jones, Mary Louise	D.C.
Johnson, Dorothy Lee	D.C.	Jones, Margaret Pearl	
B.S. 1940, Western Teachers College		B.S. in L.L. 1942, State Teachers	Mo.
Jones, Edna Adelle	N.C.	College (Millsville, Pa.)	D.C.
Jones, Elmo Ruston	D.C.	Jones, Ralph Douglas, Jr.	D.C.
Jones, Evelyn Beatrice	Ill.	Jones, Robert Thomas	N.Y.
B.S. 1936, Northwestern University		Jones, Sarah Virginia	D.C.
Jones, George Holmer	D.C.	Jones, Sarah Frances H.	Va.
Jones, Gordon Jerome	W. Va.	Jones, Sarah Day	Va.
A.B. 1936, Willamette Jewell College		Jones, Thomas A.	D.C.
Jones, Irene Elizabeth	Pa.	Jones, Virginia Walton	D.C.
Jones, James Brooks	Ohio	Jones, William Russell	D.C.
A.B. 1942, Williams College		Jones, John	
Johnson, James Maxwell	N.C.	A.B. 1934, Williams College	N.Y.
Johnson, John L.	Ill.	A.M. 1934, Duke University	D.C.
Johnson, Lawrence Hill, Jr.	R.I.	Johnson, Edward	D.C.
A.B. 1942, Brown University		Johnson, George Sanford	N.Y.
Johnson, Marvin Emerson	Ky.	Johnson, James Harold	N.Y.
A.B. 1940, Tennessee College		Johnson, Mary Jane	N.Y.
Johnson, Marlin W.	D.C.	Johnson, Ruth Nell	N.Y.
B.S. 1942, Northwest Missouri State		Johnson, Virginia Rogers	Va.
Teachers College		Johnson, William	
Johnson, Maryruth Bowers	Va.	Joy, Richard William	
Johnson, Ray Carl	Ala.	B.S. 1935, Georgia State College	D.C.
B.S. 1937, L.L.B. 1939, University		A.M. 1941, University of Maryland	D.C.
of Alabama		Joy, Charles	D.C.
Johnson, Richard Wayne	D.C.	Joy, John C.	D.C.
Johnson, Robert Monroe	N.D.	A.B. 1937, University of Oklahoma	D.C.
A.B. 1930, University of North		Joy, Margaret Ann	D.C.
Dakota		Joy, David Frank, Jr.	D.C.
Johnson, Russell Ray	D.C.	Joy, George H.	N.Y.
B.S. in E.E. 1936, B.S. in B.A.		Joy, Sally Frances	D.C.
1939, University of Idaho		Joy, Frances B.	D.C.
Johnson, Ruth Vernon	D.C.	Joyner, Katherine Marie	
		Junker, Norman A.	

Students Registered

391

Junker, Patricia Anne	D.C.	Kartus, Beatrice June	D.C.
Junker, Mary Dorothy	D.C.	Kary, Viola	Md.
Jurkey, Louis Martin	Mass.	Kasham, Raymon P.	Okla.
B.S. 1947, University of Mississippi		Kassner, Marion	N.Y.
Justus, Katherine Ann	W.Va.	Kassner, Susan	N.Y.
		B.B.A. 1947, College of the City of New York	
Kadel, Martha K.	Va.	Kassner, Sylvia Daker	N.Y.
Kafka, Richard Everett	N.Y.	Kassner, Arthur Irving	N.Y.
Kagan, Harold Nathan	N.Y.	Kassner, Elise	N.Y.
A.B. 1942, The George Washington University		Kassner, Ann	D.C.
Kahn, Margaret McFarlan	Conn.	Katz, Joseph I.	N.Y.
Kahler, Alice Theresa	Md.	B.B.A. 1949, College of the City of New York	
Kahn, Edna Corrine	D.C.	Katz, Morris Joseph	N.Y.
Kahn, Frank Foreman	D.C.	B.S. in S.S. 1948, LL.B. 1948, St. John's University	
A.B. 1947, University of Chicago		B.S. 1942, Columbia University	
Kahn, Miriam H.	D.C.	Katz, Sally Rose	D.C.
Kahn, Ray	N.Y.	Katzberg, Helen Maxine	Ill.
Kaj, Edward John, Jr.	D.C.	B.S. in M.E. 1944, Purdue University	
Kales, Elise W.	D.C.	Katzberg, Irene Elaine	D.C.
A.B. 1941, The George Washington University		Katzberg, Catherine Mary	D.C.
Kaiser, Stanley Mortimer	D.C.	Katzberg, Harry Earl	Md.
Kaiser, Margaret	Pa.	Katzberg, Irving	N.I.
Kaiser, Mary	Pa.	A.B. 1941, New York University	
Kaiser, Dorothy Waggoner	Pa.	Katzberg, Isaac	Va.
Kaiser, Celia Hoyt	N.I.	Katzberg, Marion	D.C.
A.B. 1941, Mount Holyoke College		B.S. 1941, Western Teachers College	
Kaiser, Estelle	D.C.	Katz, Robert Morris	Md.
B.S. in Ed. 1941, Wilson Teachers College		Katz, Mary Frances	D.C.
Kahn, Gustaf Bernhard	D.C.	Kay, Evelyn Joseph	D.C.
B.S. 1927, University of New Hampshire		Kay, Helen Virginia	Tex.
Kallman, Beatrice	D.C.	A.B. 1927, Southwest Texas State Teachers College	
Kallman, George Theodore	D.C.	A.M. 1927, University of Texas	
Kallmeyer, Helen Margaret	Canada	Kayman, Raymond John	D.C.
Kallman, Ethel Toby	D.C.	Kayman, Donald Elsworth	D.C.
Kallman, Lorraine	D.C.	Kayman, Anthony Linn	Mass.
B.S. 1941, Wilson Teachers College		Kay, John Harper	D.C.
Kali, George Paul	D.C.	Kay, Ruth Gray	D.C.
Kane, S. A. Lucia	D.C.	Kay, William Mae	N.Y.
Kane, John I. board	D.C.	Kearney, Joseph Paul	D.C.
Kane, Mary Louise	D.C.	Kearney, Susan	D.C.
Kane, Ruth M. Chesney	Pa.	Kearney, Robert Francis	Mass.
Kardus, Arlie Maria	D.C.	Kearney, Thomas Ann	Ill.
Karst, John Robert, Jr.	D.C.	Kearney, Charles Allen	Va.
Karst, Dora	Va.	Kearney, Lawrence Laveray	D.C.
Karst, Elinor David	D.C.	Kearney, Mary Jeanne	D.C.
Kaplan, Travis Wallif	Ill.	Kearney, Thomas Linn	D.C.
Kaplan, Lillian M.	N.Y.	Kearney, Thomas William	N.C.
A.B. 1948, Brooklyn College		Kearney, Evelyn Grove	Md.
Kaplan, Morton	N.Y.	Kearney, Frank J.	Pa.
A.B. 1944, College of William and Mary		Kearney, Julia Warren	D.C.
Kapnick, Elinor Adell	D.C.	Kearney, Catherine H. Wike	Tenn.
Kapnick, Selma Frances	D.C.	B.S. 1942, Georgia Peabody College for Teachers	
Karl, Johanna J.	Pa.	Kearney, Irving	N.Y.
A.B. 1940, Trinity College (Wash. merston, D.C.)		B.S. 1944, College of the City of New York	
Karst, Ernest Richard	D.C.	Kearney, Michael Albert	D.C.
Karl, Betty Jane	Md.	Kearney, Richard L. J.	D.C.
Karr, Annebelle Kramitz	Va.	Kearney, Howard William, Jr.	D.C.
Karp, Jeanette	Md.	Kearney, Charles Conrad	D.C.
Karp, Eva Antonia	Okla.	Kearney, Elizabeth Joseph	Mass.
Karr, Joseph Powell	Md.	B.S. 1944, University of Chicago	
Karr, Paul R.	N.Y.	Keller, Sam Marshall	Va.
Karr, William I.	Ill.	Kelley, Dorothy Louise	N.Y.
B.S. in M.E. 1931, Cooper Union		Kelley, Fred Francis	Mass.
Karsten, Karl G.	Md.	Kelley, Floyd Carl	Wash.
A.B. 1941, University of New Mexico		Kelley, James Lee, Jr.	Calif.
A.B. 1914, Oxford University (England)		A.B. 1940, University of California	
		Kelley, Josephine Wind	Calif.
		A.B. 1942, University of California	

Kelling, Dolores Jean	Kans.	Kiernan-Vasa, Helen	Pa.	DC
Kellman, Sidney	Pa.	A.B. 1938, A.M. 1939, The George Washington University	Wash.	Md.
Kelly, Dorothy Jeanne	D.C.	Kies, Marian Wood	Okla.	
Kelly, Elizabeth Graham	N.Y.	B.S. 1936, University of Illinois	N.Y.	
Kelly, Grace E.	D.C.	A.M. 1938, The George Washington University	Va.	DC
Kelly, Helen G.	D.C.	Kiesel, Eldridge Loeffler	D.C.	
Kelly, Irene Elizabeth	Va.	A.B. 1937, The George Washington University	Va.	DC
Kelly, Keith Francis	D.C.	Kiess, Harriet Knudsen	D.C.	
Kelly, Margaret G.	D.C.	A.B. 1916, Northwestern University	N.Y.	Va.
B.S. 1941, The George Washington University		Kiddell, Janice Belle	N.Y.	DC
Kelly, Mary Theresa	N.Y.	Kiley, James Lawrence	N.Y.	
Kelly, Walter McCune	N.Y.	Kilgore, William Dock, Jr.	D.C.	Calif.
A.B. 1935, Yale University	Va.	A.B. 1936, Emory and Henry College		Va.
Kemelhor, Lillian		Killian, Rosemary		
Kemelhor, Robert Elias		Kilpatrick, Edward Leo		
Kemmell, Wayne Gustav		B.S. in E.E. 1931, State University of Iowa		
Kemp, Audrey Marie		Kilpatrick, George A.		
A.B. 1942, College of William and Mary		Kimbull, Louise Agnes		
Kemp, Dorothy Bradford		Kimble, Seruch Titus, Jr.		
Kemp, Flora Vella		A.B. 1942, The George Washington University		
Kemper, Lucille Hanson		Kimche, Etta		
Kessell, Walter Earl		Kimmel, Albert George		
Kessels, Eileen		Kimpel, Ernest Blake, Jr.		
Kendrick, Frances Elizabeth		A.B. 1941, Arkansas Agricultural and Mechanical College		
Kendrick, John Alexander		Kincaid, James Fawcett		
A.B. 1942, The George Washington University		Kissler, Edward Lewis, Jr.		
Kenison, Evelyn Gertrude		King, Betty Jane		
Kenkel, William Francis		King, Donald Dornton		
Kennedy, Jessie Brett		King, Evelyn Virginia		
A.B. in Ed. 1940, The George Washington University		King, Harriet Elizabeth		
Kennemer, Roy Victor, Jr.		Kang, Helen Jean		
Kennemore, M. Marguerite		Kang, Marie A.		
Kenyon, Kenneth		King, Margaret Smith		
Kerakou, Paris Nicholas		King, Neil Amelia		
Kelley, Martha Louise		King, Rena Marie		
Kern, Arthur		King, Royal C.		
Kern, Maxwell M.		Kirchman, Allen Frederick, Jr.		
B.S. 1940, College of the City of New York		Kinner, Harold C.		
Kern, Richard I.		Ph.G. 1928, The George Washington University		
B.S. 1930, Miami University		Kinney, Mary Laurine		
Kerr, David Jay		Kinney, Rachel Keturah		
Kershaw, John A.		Kinsel, Lois Thelma		
Keshishian, James Mark		Kinsman, Irene Anna		
Kessell, Roy Franklin		Kinsley, Wyatt Claude		
A.B. 1940, Fairmont State Teachers College		Kinsz, Ruth Berley		
Kassinier, James Bennett		Kirby, Grace M. Fred		
Kessler, Bruce Richards		A.B. 1941, Brooklyn College		
A.B. 1920, American University		Kirby, James W. H. W.		
A.M. 1917, Columbia University		Kirby, Marcel W. H. W.		
Kessler, Della C.		Kirby, Frances Carlyle		
Kessler, Evelyn Martha		Kirk, Donald Lee		
Kessler, Leo Juda		Kirk, Donald Angus		
Kessler, Milton U.		A.B. 1941, University of Utah		
Kessler, Richard Calvin		Kirk, Kenneth B.		
Kessler, Rosslyn		Kirkham, Grant		
Kessner, Louis Joseph		L.I.B. 1941, The George Washington University		
Kester, John Edwin		Kirkland, James Leonard		
Keve, Paul Willard		Kirkley, William Joseph		
Keyser, Mary Pheasant		Kirkwood, Jack		
Keyser, Vesta V.		Kirsh, Louis Davis		
Kibble, Blanche Irene		Kirstein, Myron		
Kidd, Margaret Lee		B.M.E. 1943, The George Washington University		
Kidwell, Alfred Spiller		Kirstein, Sara J.		
Kieckhefer, Frederick Boorse		Kirstein, Sidney Leonard		
A.B. 1941, Yale University				
Kiefer, Edith Frances				



# Students Registered

393

Kirstein, Stanley William A.B. 1940, The George Washington University	D.C.	Koch, Margaret A.B. 1940, Trinity College (Wash- ington, D.C.)	N.Y.
Kiser, Thomas Marie	Ky.	M.S. 1941, University of Chicago	
Kissick, Harold G.	Mo.	Kochin, Charles	Ill.
Kitchin, Sara Jane	D.C.	Kochman, Dorothy Grace	Mass.
Klein, Joe Wyatt	Ark.	Kochman, John I.	Mo.
Klaue, James Mason	M.I.	Kochman, Martin M.	D.C.
Klaue, Jules Meyer	Ariz.	Kochman, Stanley Smith	Va.
Klavans, Stanley	D.C.	Kochman, David	N.Y.
Klebanoff, Philip Samuel B.S. 1940, Brooklyn College	N.Y.	Kochman, Anthony Lawrence	N.Y.
Klein, Albert Edward, Jr.	W.Va.	Kochman, Francis V.	D.C.
Klein, Jack	D.C.	Kochman, Gene	D.C.
A.B. 1942, The George Washington University		Kochman, Irene Eva	Pa.
Klein, Alfred Kenneth	D.C.	Kochman, Christine Cecilia	Mo.
B.S. 1930, St. Louis University		Kochman, Virginia	Mo.
Klein, Lucie	D.C.	Kochman, Bernard Randolph	D.C.
B.S. 1940, A.M. 1942, New York University		Kochman, Joseph	D.C.
Kleiner, Richard Isaac	Mo.	A.B. 1942, The George Washington University	
B.M.E. 1942, New York University		Kolbe, Vernon William	Pa.
Klennie, Dorothy Elizabeth	Cal.	B.S. 1941, Western Reserve Uni- versity	
A.B. 1928, M.S. 1929, Ph.D. 1935, University of Colorado		Kolman, G. Martha	Pa.
Klenzner, Leah	Mass.	Kolman, Lucy P. S.	T.H.
Klitzsch, Marguerite Rose	Mo.	Kolman, John Edward	Pa.
Klett, Catherine M.	Ill.	Kolman, Joseph	T.H.
Kley, Frank Carl, Jr.	Mo.	Kolman, Stanley	China
Kline, Lillian P.	N.Y.	A.B. 1936, Kwang Hua University (China)	
Kline, Frederick Elmer, Jr.	Va.	Kopp, Robert	N.Y.
Kline, William Howard John B.S. 1932, Pennsylvania State College	Pa.	A.B. 1941, Brooklyn College	
Klay, Suzanne	Va.	Kopp, Helen Lane	D.C.
A.B. 1940, Smith College		Koppelman, Jacob Jerome	Md.
Klip, Mary Rox	D.C.	Koppelman, John Isaac	D.C.
Knappe, Mary Jane	Cal.	Koppelman, Virginia Magdaletta	Md.
Klitzsch, Elsie Ramola	W.Va.	Koppelman, Saul Roy	N.Y.
Klitzsch, William A.	W.Va.	M.D. 1941, University of Western Ontario Medical School	
Klitzsch, Albert Ruth	D.C.	Korman, Grace	D.C.
Klitzsch, Gilbert Frank	Nebr.	Korman, Mark Joseph	D.C.
L.L.B. 1940, The George Washington University		Korman, Linda S.	Cal.
Klose, Ida Iris	Mo.	Korman, Leonard Rosemary	D.C.
L.L.B. 1926, University of Maryland		Korn, Leonard	D.C.
Klyne, Dorothy	D.C.	Korn, Tim	Va.
Krapp, Charles Pratt	N.Y.	Kornblum, Victoria	D.C.
Kramer, Karl Albert	D.C.	Kornblum, Coleman William	Pa.
Kramer, Virginia Mae	D.C.	Kornblum, Edward Joseph	Pa.
Kramer, Thor Alexis	D.C.	Kornblum, Saul Jackson	Turkey
Kramer, Orlean Marie	Mo.	Kornblum, Herbert Morris	Nebr.
Kramer, Raymond Lyon	Va.	A.B. 1937, Municipal University of Chicago	
A.B. 1940, University of California	Cal.	Kornblum, John Wayne	D.C.
Kraus, Robert Whitney	Pa.	Kornblum, David	D.C.
Kraus, Betty Jane	D.C.	Kornblum, Lester	D.C.
Kraus, Danielle R. Jane	D.C.	Kornblum, Raymond Carlton, Jr.	Ohio
Kraus, Catherine Ann	D.C.	Kornblum, Valma Julia	D.C.
A.B. 1940, American University		Kornblum, Anna Christine	D.C.
Kraus, Arthur Maxwell	Mass.	Kornblum, Anthony Lawrence	Iowa
Kraus, Imogene	D.C.	Kornblum, Anna	Md.
Kraus, Paula Kaye	D.C.	A.B. 1936, Hunter College	N.Y.
A.B. 1945, The George Washington University		Krues, Harry	Md.
Kraus, Donald Arthur	Mass.	Kraus, Betty Miller	Nebr.
Kraus, Helen Katherine	D.C.	Kraus, Helen Margaret	
Kraus, Helen Elizabeth	Mo.	B.M. in Ed. 1942, University of Nebraska	
Kraus, Lawrence William	Ill.	Kraus, Muriel Marie	Nebr.
Kraus, Evelyn Mae	N.D.	Kraus, Mildred	N.Y.
Kraus, Patricia Jane	D.C.	Kraus, Meier	D.C.
Kraus, Leslie Charles	D.C.	Kraus, Gerald Helen	D.C.
A.B. 1940, University of Utah		Kraus, Mary Lou	Ohio
		Kraus, Rose Sylvia	Md.
		Kraus, Barrett Gerald	N.Y.
		Kremen, Alice W.	Pa.



Krempin, Josephine	Tex.	Kutis, Jesamot Orlan	Pa.
Krempin, Mamye Augusta	Tex.	Kyle, Hugh C.	Pa.
Krenzel, Julia Barbara	Pa.		L
Kreppett, Helen Laura	Mo.		Pa.
Kress, Helen Jane	Wash.	LaBerge, Martin Oliver	Pa.
Kressley, Clement D. J.	Md.	Labadie, Peter Paul	Mo.
Krieger, D. Jeanne	Iowa	Lackey, Mary Dexter	Mo.
A.B. 1942, The George Washington University		Lacy, Martha Hamilton	Pa.
Krieger, Eleanor Louise	Va.	Laibner, John	Pa.
Kroebing, Martin	Ill.	LL.B. 1921, University of Chicago	Pa.
B.S.C. 1940, Northwestern University		Lager, Evelyn Joseph	Pa.
Krook, Martin J.	N.Y.	B.S. 1937, St. Mary's College (Minn.)	Pa.
Krook, Fred George	N.Y.	Lalor, Adolph A.	Pa.
Krook, Harold Lloyd	N.Y.	Lathrop, Martha Behse	Pa.
Krook, Charles S.	N.Y.	A.B. 1942, DePauw University	Pa.
Krook, Evan McKay	Idaho	Lauri, Stanley Wesley	Pa.
A.B. 1942, LL.B. 1942, University of Utah		Lukas, Nicholas S.	Pa.
LL.M. 1941, The George Washington University		Lake, Gerald Kinsapp	Pa.
Krook, Albert	D.C.	Lakod, Adelle	Pa.
Krook, Selma Z.	Md.	Lally, Paul Thomas	Pa.
Krook, Arnold Mayo	D.C.	Lam, Madelon French	Pa.
Krook, Ruth A.	N.Y.	A.B. 1941, University of Arkansas	Pa.
A.B. 1941, Brooklyn College		A.M. 1946, Cornell University	Pa.
Krook, I. Lloyd Carl	Va.	LaMar, Frank Richard	Pa.
A.B. 1941, The George Washington University		LaMar, Virginia Ann	Pa.
Kroutil, Persis Marti	Va.	Lamb, Constance	Pa.
B.S. 1940, The George Washington University		Lamb, John James	Pa.
Kruger, Norman Leland	Iowa	Lambert, Frank Lincoln	Pa.
Krupasaw, Barbara Lee	D.C.	Lambert, Karlotta Yvonne	Pa.
Ksanda, Charles Fernand	D.C.	Lambert, Robert Frank	Pa.
B.S. 1941, University of Maryland		Lambert, Sue Lane	Pa.
Kusack, Ernest Frank	Nebr.	Lambert, Milton Ward	Pa.
Kusack, Robert Ayer	D.C.	Lambert, Carl Mae	Pa.
Kusack, Carl Albert	Ohio	Lambert, Ethel Pauline	Pa.
A.B. 1946, Miami University		A.B. 1943, Mississippi College	Pa.
M.S. 1940, Wayne University		Lambert, Charles Amade	Pa.
Kuhne, Norman Werner	Mich.	Lambert, Avian Carson	Pa.
Kulbert, Leslie Ervin	Md.	A.B. 1942, University of Maryland	Pa.
B.S. in E.E. 1943, Pennsylvania State College		Lambert, Estelle Roxie	Pa.
Kuldell, Clarence Elliot	D.C.	Lambert, Frank Eugene	Pa.
Kuldell, Lois Anne	D.C.	Lambert, Mirtha Antonia	Pa.
Kulish, Martin William	Pa.	Lambert, Pauline Almore	Pa.
Kulisheck, Marjorie R.	D.C.	Lambert, Seymour	Pa.
A.B. 1944, Washington College		Lambert, David Florence	Pa.
A.M. 1942, Washington State College		Lambert, Lester	Pa.
Kummer, Emil Conrad	N.Y.	B.S. 1948, University of Michigan	Pa.
Kune, Bernard Jack	D.C.	Lambert, Betty Anne	Pa.
Kunert, William Frank	S.D.	Lambert, Paul Robert	Pa.
Kunkel, Robert George	Ill.	A.B. 1944, Carleton College	Pa.
Kunsky, Nellie Pauline	Ill.	Lane, John McAllister	Pa.
Kurland, Walter	D.C.	Lane, Richard Sydney	Pa.
B.S. 1942, The George Washington University		A.B. 1941, Harvard University	Pa.
Kusle, Edward	N.D.	A.B. 1946, Athens College for Young Women	Pa.
Kurs, Bernard	N.Y.	A.M. 1942, Washington University	Pa.
Kurstin, William	D.C.	Lane, Walter Harold	Pa.
A.B. 1942, The George Washington University		Lane, Anna R. Jr.	Pa.
Kurtz, James A.	Wis.	Lane, Raymond Edward	Pa.
Kurtz, Kenneth Eli	Ill.	A.B. 1941, The George Washington University	Pa.
Kurylo, Clarence Vincent	Wis.	Lane, Lucine David	Pa.
Kurylo, Walter	Wis.	Lane, Dorothy Ruth	Pa.
Kuschke, Raymond Eugene	Oron.	Lane, Kenneth Edward	Pa.
Kuse, Helen Elizabeth	Ill.	Lane, Howard Joseph	Pa.
Kushman, Hollis Kent	D.C.	A.B. 1941, Mississippi College	Pa.
Kushman, Leaton John	D.C.	Lane, John Henry	Pa.
B.S. 1940, The George Washington University		Lane, Charles Joseph	Pa.
		A.B. 1940, American University	Pa.
		Lane, M. J. Bennett	Pa.
		B.S. 1939, University of Washington	Pa.
		A.M. 1941, Mills College	Pa.
		Lansam, Abraham	Pa.

Students Registered

395

Lanetty, James Henry	D.C.	Leibetter, Gene Monte	N.C.
Lanham, Aaron B.	Calif.	Leiberman, Jack Marcus	N.Y.
AB, 1931, University of Rochester		Leiberman, Julia Elizabeth	Mass.
Lanham, Samuel Martin Stephens	N.Y.	Leibin, Joseph's David	Mass.
P.B., 1924, Yale University		Leibin, Dorothy M.	D.C.
Lansdale, Mary Louise	D.C.	Leibin, William Paul	La.
Lansdale, Suzanne Mary	D.C.	AB, 1929, A.M., 1930, Tulane	
Lansford, Wilford Matson	D.C.	University of Louisiana	
Lansing, Edward Watson	D.C.	Leibman, David Louis	La.
Lansky, Lucile	D.C.	Leibman, Joseph Marie	Calif.
Lansky, Nancy	D.C.	Leibman, Joseph	China
Lansky, Robert Darrinovich	V.	AB, 1930, Temple University	
B.S., in E.L., 1931, Tri-State College		(Ill.)	
Lansky, Joyce	Univ.	Leibman, Gladys	Tex.
Lansky, Elizabeth Barlow	D.C.	Leibman, Gladys Ellen	D.C.
Lansky, Arthur Lee Jr.	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Dorothy Marcelin	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Mary Louise	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Otto Anna	M.	Leibman, Harold (Harold)	D.C.
Lansky, Robert A. W.	N.E.	Leibman, Harold (Harold)	D.C.
Lansky, Herbert Leonard	Mass.	Leibman, Harold (Harold)	D.C.
Lansky, Fred Perry	Mass.	Leibman, Harold (Harold)	D.C.
Lansky, Gustav Leiden	Mass.	Leibman, Harold (Harold)	D.C.
Lansky, Herbert Paul	M.	Leibman, Harold (Harold)	D.C.
Lansky, Louis David Jr.	M.	Leibman, Harold (Harold)	D.C.
AB, 1931, Tri-State College		Leibman, Harold (Harold)	D.C.
Lansky, Patricia Louise	M.	Leibman, Harold (Harold)	D.C.
Lansky, Victor R.	M.	Leibman, Harold (Harold)	D.C.
Lansky, Robert R.	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Mary Louise	M.	Leibman, Harold (Harold)	D.C.
Lansky, Louis E.	N.Y.	Leibman, Harold (Harold)	D.C.
Lansky, Joseph	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Joseph	N.Y.	Leibman, Harold (Harold)	D.C.
Lansky, Joseph	D.C.	Leibman, Harold (Harold)	D.C.
AB, 1931, University of Pennsylvania		Leibman, Harold (Harold)	D.C.
LL.M., 1942, Harvard University		Leibman, Harold (Harold)	D.C.
Lansky, Robert Joseph	W.	Leibman, Harold (Harold)	D.C.
Lansky, Arthur George	Univ.	Leibman, Harold (Harold)	D.C.
Lansky, Mary Louise	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Joseph Ray	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Mary Louise	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Nancy	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Nancy Jane	M.	Leibman, Harold (Harold)	D.C.
Lansky, Alice Mary	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Louis John Jr.	M.	Leibman, Harold (Harold)	D.C.
Lansky, Paul Gerald	V.	Leibman, Harold (Harold)	D.C.
Lansky, Mary R.	V.	Leibman, Harold (Harold)	D.C.
AB, 1931, University of Pennsylvania		Leibman, Harold (Harold)	D.C.
Lansky, Mary Louise	D.C.	Leibman, Harold (Harold)	D.C.
AB, 1931, University of Pennsylvania		Leibman, Harold (Harold)	D.C.
Lansky, Edward Lawrence	M.	Leibman, Harold (Harold)	D.C.
Lansky, John Harold	M.	Leibman, Harold (Harold)	D.C.
Lansky, Kenneth Swift	M.	Leibman, Harold (Harold)	D.C.
Lansky, Arthur A. Jr.	M.	Leibman, Harold (Harold)	D.C.
Lansky, Della Virginia	Tex.	Leibman, Harold (Harold)	D.C.
Lansky, Robert Lee	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Carl Franklin	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Charles Frank	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Robert William	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, William O. Jr.	W.V.	Leibman, Harold (Harold)	D.C.
Lansky, Robert Elizabeth	OK.	Leibman, Harold (Harold)	D.C.
Lansky, Mary Kathleen	D.C.	Leibman, Harold (Harold)	D.C.
Lansky, Frances	V.	Leibman, Harold (Harold)	D.C.
Lansky, Joseph, Jr.	M.	Leibman, Harold (Harold)	D.C.
Lansky, Mary	N.E.	Leibman, Harold (Harold)	D.C.
Lansky, Marie Jeanette	N.E.	Leibman, Harold (Harold)	D.C.
AB, 1931, University of Pennsylvania		Leibman, Harold (Harold)	D.C.
Lansky, John	Tex.	Leibman, Harold (Harold)	D.C.
AB, 1931, University of Pennsylvania		Leibman, Harold (Harold)	D.C.
Lansky, John	V.	Leibman, Harold (Harold)	D.C.
B.S., 1930, A.M., 1932, The George		Leibman, Harold (Harold)	D.C.
Washington University		Leibman, Harold (Harold)	D.C.
Lansky, Louis Albert	Calif.	Leibman, Harold (Harold)	D.C.
AB, 1931, University of California		Leibman, Harold (Harold)	D.C.
LeCroy, Vadie Laurene	Mass.	Leibman, Harold (Harold)	D.C.

Lester, Robert Thomas	MA	Leiberman, Herman	NY
Leitch, George, William Edward	NY	B.S. 1915, M.S. 1916, College of the City of New York	
Leitch, Elton Vincent	D.C.	LL.B. 1911, The George Washington University	NY
LeVine, Grace Mae	Pa	B.S. 1917, Brooklyn College	DC
LeVine, Claude Napoleon	MA	Leiberman, Robert, Russell	NY
Levin, Alec Charles	Va	Leiberman, William	
B.S.C. 1917, Temple University		B.S. 1917, College of the City of New York	Ill
Levin, Alex	D.C.	Leiberman, Hermine	Mar
Levin, David Dale	Wash	Leiberman, Robert, Russell	NJ
B.S. 1942, University of Washington		Leiberman, William	
Levin, Harry	NY	B.S. 1917, College of the City of New York	
B.B.A. 1948, St. John's University		Leiberman, Hermine	
Levin, Michael Ruth	D.C.	Leiberman, Robert, Russell	
Levin, Stanley William	D.C.	Leiberman, William	
Levine, David Hor	NY	B.S. 1917, College of the City of New York	
B.S. in M.E. 1911, New York University		Leiberman, Hermine	
Levine, Harry	NY	Leiberman, Robert, Russell	
Levine, Irving Abram	D.C.	Leiberman, William	
Levine, Isaac	NY	B.S. 1917, College of the City of New York	
A.B. 1908, Hunter College		Leiberman, Hermine	
Levine, Marion S.	MA	Leiberman, Robert, Russell	
Levine, Samuel	NY	Leiberman, William	
A.B. 1911, Brooklyn College		Leiberman, Hermine	
M.S. 1915, College of the City of New York		Leiberman, Robert, Russell	
Levine, William	D.C.	Leiberman, William	
Levinson, Yeha	Pa	B.S. 1917, College of the City of New York	
Levinson, Freda Donna	D.C.	Leiberman, Hermine	
Levinson, Louis John	D.C.	Leiberman, Robert, Russell	
Levinson, Nelson N.	NY	Leiberman, William	
Levy, Edith Alice	D.C.	B.S. 1917, College of the City of New York	
Levy, Hans Ferdinand	Va	Leiberman, Hermine	
Levy, Henry Mayham	D.C.	Leiberman, Robert, Russell	
Levy, Jesse Paul	D.C.	Leiberman, William	
Levy, Samuel J.	NY	B.S. 1917, College of the City of New York	
LL.B. 1903, New York University		Leiberman, Hermine	
Levy, Walter Otto, Jr.	Pa	Leiberman, Robert, Russell	
Lewis, Arthur Norman	NY	Leiberman, William	
A.B. 1911, Harvard University		B.S. 1917, College of the City of New York	
Lewis, Bertha Ruth	Pa	Leiberman, Hermine	
Lewis, Bertha Ann	D.C.	Leiberman, Robert, Russell	
Lewis, Bertha Ruth	Va	Leiberman, William	
Lewis, Blanche Cooper	Mo	B.S. 1917, College of the City of New York	
B.S. in Ed. 1941, State Teachers College (Mo.)		Leiberman, Hermine	
Lewis, Emma Esther	Kan	Leiberman, Robert, Russell	
Lewis, Hyman Louis	D.C.	Leiberman, William	
A.B. 1901, The George Washington University		B.S. 1917, College of the City of New York	
Lewis, Mary Lee	D.C.	Leiberman, Hermine	
Lewis, Mary Mary	D.C.	Leiberman, Robert, Russell	
A.B. 1911, Western Teachers College		Leiberman, William	
Lewis, Ralph S. Lee	Pa	B.S. 1917, College of the City of New York	
B.S. 1917, University of Michigan		Leiberman, Hermine	
Lewis, Raymond Eugene	Oregon	Leiberman, Robert, Russell	
Lewis, Robert Allen	Pa	Leiberman, William	
Lewis, Robert Griffith	D.C.	B.S. 1917, College of the City of New York	
Lewis, Sam Leane	D.C.	Leiberman, Hermine	
Lewis, Virginia Catherine	W Va	Leiberman, Robert, Russell	
A.B. 1911, Boston College		Leiberman, William	
A.M. 1913, West Virginia University		B.S. 1917, College of the City of New York	
Lexton, Maud Helen	Calif	Leiberman, Hermine	
Lewis, Frances Patrick	MA	Leiberman, Robert, Russell	
Leys, James L.	MA	Leiberman, William	
Li, Madeline Marion	D.C.	B.S. 1917, College of the City of New York	
Lichten, Louis Morris	NY	Leiberman, Hermine	
Lichten, David Lee	D.C.	Leiberman, Robert, Russell	
Lichten, Robert Ruth	D.C.	Leiberman, William	
Lichten, David	NY	B.S. 1917, College of the City of New York	
A.B. 1911, New York University		Leiberman, Hermine	
Licht, Hans Harold	NY	Leiberman, Robert, Russell	
B.S. 1911, Cornell University		Leiberman, William	
Lidstone, Hyman Edward	MA	B.S. 1917, College of the City of New York	



Lasker, Leigh	Pa	Longley, Jay Rhodes	Wis
AS 1941, University of Pennsylvania		AB 1942, Colleton College	
Lisle, Elizabeth, Bookner	Ky.	Loomis, Helene Elisabeth	DC
AB 1935, Shorter College (Ga.)		Loomis, Roger Edwin	Ky
Liss, Gertrude	DC	Lora, Eugene L.	NJ
Liss, V. Rathelen	Calif	AB 1931, J.D. 1933, New York University	
AS 1941, Stanford University		Lore, Martin Maxwell	Wis
Lister, Herbert Everett	DC	AB 1934, LL.B. 1936, University of Wisconsin	
Lister, Virginia Frances	DC	LL.M. 1937, Harvard University	
Litman, Florence	DC	Lowe, Esther Viola	Kan
Litvitz, Theodore Aaron	DC	Lowe, Joseph Paul	NC
Liton, Clifford Earl	DC	BS in M.E. 1938, University of North Carolina	
Litton, Robert Wilson	DC	Lowe, Roger Marshall	Mass
Littlejohn, Luke Jr.	Md	BS 1937, S.D. 1941, Massachusetts Institute of Technology	
Littman, Louis Chandler	Va	Lorman, Margaret	DC
AB 1936, Henry and Henry College		Lottman, Henry Theodore	Me
Littman, Isabelle C.	NY	Lottman, Rex Lee	Pa
AB 1941, Hester College		BS 1936, Indiana University of Indianapolis	
Littman, Richard Anton	NY	MS 1938, University of Washington	Pu
LL.B. 1941, University of Maryland	DC	Lott, Margaret Agnes	DC
Liveston, Harold Charles	NY	Lott, Samuel Francis	
Liveston, Lemme	NY	AB 1941, The George Washington University	
AB 1942, The George Washington University		Loud, Maurice Alce	NY
Liveston, Samuel		AB 1935, M.A. 1936, College	
Liveston, Victor Jr.	NY	BS in Ed. 1934, Ohio State University	
Liveston, Earl Leslie	NC	Loud, David William	DC
Lizotte, Jane Doreen	DC	BS in Ed. 1935, LL.B. 1938, University of Missouri	
AB 1938, San Francisco State College		Lovins, Lloyd Gerald	Me
LL.B. 1941, University of California	DC	Lowe, Louis Augustus	Pa
Lizotte, Earl	DC	Lowe, R. Howard	Va
Lizotte, Louis	DC	Lowe, R. L. Edgar	Pa
AB 1938, Iowa State Teachers College		Lowe, Robert Eugene	Md
Lizotte, Robert	Wash	Lowe, Maurice Joseph	Va
LL.B. Allen Weber	DC	Lowe, Louis Maurice	Ohio
Lizotte, Robert	Va	Lowe, Margaret H.	DC
Lizotte, Fred Stark	Va	Lowe, Anne Louise	DC
BS in E. 1937, Syracuse University		Lowe, Chester Eugene, Jr.	DC
Lizotte, Virginia Barran	Md	Lowe, William William	Inda
Lizotte, Louis	DC	BS 1944, University of Idaho	
Lizotte, Louis	DC	Lowe, Jack O.	Pa
Lizotte, Louis	DC	Lowe, Alfred Raymond	Pa
Lizotte, Louis	DC	Lowe, Irving S.	NY
Lizotte, Louis	DC	Lowe, Gladys Tyler	DC
Lizotte, Louis	DC	AB 1937, Lincoln Memorial University	
Lizotte, Louis	DC	BS 1932, The George Washington University	
Lizotte, Louis	DC	Lowe, Paul	DC
Lizotte, Louis	DC	Lowe, Ross Llewellyn	Wash
Lizotte, Louis	DC	AB 1941, The George Washington University	
Lizotte, Louis	DC	Lowe, Washington Stokes	DC
Lizotte, Louis	DC	Lowe, Augusta Nellie	Pa
Lizotte, Louis	DC	Lowe, Keith Gordon	Va
Lizotte, Louis	DC	AB 1941, Southampton University	
Lizotte, Louis	DC	Lowe, Robert L.	DC
Lizotte, Louis	DC	Lowe, Robert E.	Va
Lizotte, Louis	DC	Lowe, George M.	NY
Lizotte, Louis	DC	Lowe, Anne Louise	Va
Lizotte, Louis	DC	Lowe, Charles Wilson	Pa
Lizotte, Louis	DC	Lowe, Helen	NE
Lizotte, Louis	DC	Lowe, George Joseph	Pa
Lizotte, Louis	DC	Lowe, Robert Charles	Pa
Lizotte, Louis	DC	Lowe, Walter Burton, Jr.	Va







Massey, Virginia Esther	Ohio	M. Bee, Gladys Louisa	
B.S. in Ed. 1926, University of Akron		McBride, Donald Arthur	
Massie, Monroe Raymond	D.C.	McBride, Mary Anne	
A.B. 1918, Concord State Teachers		McBride, Mary Marshall	
College (W. Va.)		B.S. 1921, The George Washington	
Master, Lloyd Edward	N.Y.	University	
B.S. 1928, Syracuse University		McCabe, James Joseph	
Master, Robert C.	Ark.	McCabe, Jane D.	
Master, Robert H.	D.C.	McCabe, Mary Boudette	
Master, Dorothy H.	Main.	McCabe, William Lane	
Master, Helen Louise	D.C.	McCabe, William Wood	
Master, Robert Joseph	D.C.	A.B. 1924, The George Washington	
Master, David M.	N.D.	University	
Master, Lillian	D.C.	McCabe, Alice Lettice	
Master, James Albert	Me.	McCabe, Lora	
Master, John Buchanan	D.C.	McCabe, Rita Agnes	
Master, Mary Anne	Ort.	McCabe, Helen	
A.B. 1917, The George Washington		McCabe, Margaret	
University		McCabe, William R.	
Master, Irving	N.Y.	McCabe, Raymond A.	
Master, Robert Alexander	Me.	B.S. 1911, University of Missouri	
Master, Douglas Sawyer	Va.	McCarthy, Samuel Patrick	
Master, Herbert George	S.C.	McCarthy, Charles Henry, Jr.	
Master, James Hays	Calif.	McCarthy, John Benjamin	
Master, L. Eleanor	Pa.	McCarthy, M. B.	
Master, Mary Catherine	N.C.	McCarthy, Raymond Lawrence	
Master, Maria C.	D.C.	A.B. 1911, M.S. 1912, Fordham	
Master, Walter Bernard	N.Y.	University	
Master, Robert Andrew, Jr.	D.C.	McCarthy, Robert Joseph	
Master, Arthur Richard	D.C.	McCarthy, Thomas Peter	
Master, Helen Louise	D.C.	McCarthy, Mary Virginia	
Master, Lawrence Charles	Pa.	B.S. 1927, White Thomas College	
Master, Lila Gertrude	N.D.	McCarthy, George Vernon	
Master, Virginia May	Me.	McCarthy, Louise Stinson	
Master, Herbert Maurice	N.Y.	A.B. 1921, University of Alabama	
Master, 1914		McCarthy, Howard Frank	
Master, Joseph Leonard	D.C.	McCarthy, Lavonne Helen	
Master, William Henry	W. Va.	McCarthy, Robert James	
B.S. 1911, Seattle College		McCarthy, Joseph Earl	
May, Vivian I.	N.Y.	McCarthy, Paul W.	
B.S. 1909, College of the City of		McCarthy, Paul Eugene Jr.	
New York		McCarthy, Helen G.	
May, Barbara Ellen	D.C.	McCarthy, Henry James	
May, Irving	N.Y.	McCarthy, Joseph Anthony	
May, Lillian Mae	D.C.	McCarthy, Charles Lowell, Jr.	
Mayer, Charles Albert	D.C.	McCarthy, Donald Eugene	
Mayer, Herbert	D.C.	McCarthy, George L.	
Mayer, Lucie Kathryn	D.C.	McCarthy, Charles Robert	
A.B. 1911, University of California		McCarthy, Joseph Louis	
Mayer, Louise Helen	D.C.	McCarthy, Harlan Lyman	
Mayer, William Raphael	D.C.	McCarthy, Madeline Estelle	
Mayer, Leonard Augustan	D.C.	McCarthy, Margaret I.	
B.S. 1908, Eastern Kentucky Teachers		McCarthy, Myron	
College		McCrahen, Betty Mae	
Mayer, Mable Beatrice	Iowa	McCrea, John Weed	
Mayer, Mable C.	D.C.	B.S. 1940, Michigan State College of	
A.B. 1918, University of Tulsa		Agriculture and Applied Science	
Mayer, L. Lucile	Calif.	McCrea, Sybil I.	
Mayer, Clarence	N.H.	McCreight, Major Israel	
Mayer, George	D.C.	McCubbin, John Gordon	
M. Allen, John P.	Me.	McCue, Timothy S.	
M. Allen, I. D.	Ort.	B.S. 1930, University of Virginia	
M. Allen, Don B.	Me.	McCullough, Jane I.	
A.B. 1911, Brigham Young University		McCullough, Robert William	
M. Allen, Charles F., Jr.	D.C.	McCullough, Thomas LeRoy	
M. Allen, Alexander Joseph	D.C.	McCutcheon, James Glezen	
M. Allen, Margaret Gertrude	D.C.	A.B. 1921, University of Buffalo	
M. Allen, Mary G.	D.C.	McDermott, Jean Marie	
M. Allen, Blanche Marie	Pa.	McDermott, Robert I.	
M. Allen, Frank F.	Ark.	McDonald, Fred Christine	
M. Allen, Lela Frances	Calif.	McDonald, Helen	
M. Allen, Donald Arthur	Me.	B.S. 1912, The George Washington	
M. Allen, William Bernard	Me.	University	
M. Allen, Paula Lucille	W. Va.	McDonald, Lela Marie	



# Students Registered

401

McDonald, Margaret	S.D.	McDonald, Vera L.	W.Va.
McDonald, Ronald Franklin	Mo.	McDonald, A.B. 1928 A.M. 1934, West Virginia University	
McDonald, Joseph, Ramon	Pa.	McDonald, Berne Roberts	I.C.
McDonald, Martha Ann	Ohio	McDonald, Charles Graham	N.C.
McDonald, Robert Adams	N.Y.	McDonald, Clarence K.A.	N.I.
A.B. 1929, Syracuse University		McDonald, Helen F.	I.C.
McDonald, Louise Ann	D.C.	McDonald, R. J. J. J.	Ky.
McDonald, Julia Mae	D.C.	A.B. 1941, Marshall College	
McDonald, Janet	D.C.	McDonald, Margaret	Canada
McDonald, Mary Adelaide	Va.	A.B. 1929, Dalhousie University	
McDonald, Gladys Mary, Jr.	I.C.		
McDonald, Alexander Campbell	Mo.	McDonald, Mary E.	Mo.
McDonald, Gordon C.	Va.	McDonald, Thomas Wilson	Calif.
McDonald, Virginia Smith	Iowa	B.S. 1942, University of Notre Dame	
McDonald, Roy Lee	Tenn.	McDonald, John L.	Calif.
McDonald, Edward C. H. H.	N.I.	B.S. 1942, University of Arizona	
McDonald, Melville Julia	N.I.	McDonald, William	I.C.
McDonald, Harriette	I.C.	McDonald, Anna	Calif.
McDonald, Frances George	Mo.	McDonald, Eugene Francis	W.Va.
McDonald, M. A. C. C. C.	Tenn.	McDonald, Virginia A.	Calif.
McDonald, Patricia Katherine	N.H.	A.B. 1941, College of New Rochelle	
A.B. 1941, University of Nebraska		McDonald, William H.	N.I.
McDonald, William	I.C.	McDonald, Mary R.	I.C.
McDonald, Margaret Richard	Mo.	McDonald, James	W.Va.
McDonald, James L. H. H.	D.C.	McDonald, John	W.Va.
McDonald, Margaret B.	N.I.	McDonald, Mary Anne	Pa.
McDonald, John C. C. C. H.	Va.	McDonald, William Walter	I.C.
McDonald, Joseph Paul	Ky.	McDonald, Hamilton Lee	I.C.
McDonald, Robert M. M.	I.C.	McDonald, Paul J. J.	I.C.
McDonald, James Irwin	N.Y.	McDonald, Paul Henry	Mo.
McDonald, D. S. J. J.	D.C.	McDonald, Margaret Ann	I.C.
A.B. 1941, The George Washington University		McDonald, Mary Moore	Calif.
McDonald, Keith LeRoy	N.H.	McDonald, Mary Ann	I.C.
McDonald, Leonard H. H.	Tenn.	McDonald, Thomas Francis	D.C.
McDonald, James Joseph, Jr.	Mo.	McDonald, Anna Mary	D.C.
McDonald, Sarah M.	N.Y.	McDonald, Helen Page, Jr.	W.Va.
McDonald, Anna A. A.	W.Va.	McDonald, Louise	I.C.
McDonald, Albert LeRoy	D.C.	McDonald, Eugene	Mo.
McDonald, Robert Andrew	N.Y.	McDonald, Maurice B.	Mo.
McDonald, Ruth Louise	Va.	McDonald, Robert Keith	Mo.
McDonald, Robert Vernon	D.C.	McDonald, J. J. R. P.	I.C.
A.B. 1945, The George Washington University		A.B. 1944, Union College	
McDonald, William G.	D.C.	McDonald, James Simon	Tenn.
McDonald, Mary Ann A.	D.C.	McDonald, George A.	Calif.
McDonald, Robert B. B.	Va.	A.B. 1945, University of Colorado	
McDonald, Peter J. J. J.	D.C.	McDonald, John H. H.	Mo.
McDonald, Henry Frank, Jr.	D.C.	McDonald, Charles Anthony	Calif.
McDonald, Louise Matzall	I.C.	McDonald, Evelyn Ruth	Mo.
B.S. 1941, A.M. 1948, The George Washington University		McDonald, Alexander Jr.	Mo.
McDonald, Louise L. L.	Pa.	McDonald, Robert	Mo.
McDonald, M. M.	I.C.	McDonald, Arthur E. E.	Va.
McDonald, Richard Kendall	Calif.	McDonald, Harold H. H.	Ky.
McDonald, Louis C. C.	W.Va.	McDonald, Robert L. L.	Tenn.
P.S. 1940, State College of Washington		McDonald, R. J. J. J.	Calif.
McDonald, John J. J.	I.C.	McDonald, Robert	I.C.
McDonald, Mary J. J.	I.C.	B.S. 1947, Central State Teachers College (O.K.)	
McDonald, Thomas W. W.	I.C.	McDonald, Paul Anne, Jr.	Mo.
McDonald, William W. W.	I.C.	B.S. 1947, H. B. A. H. University	
McDonald, Howard William	Calif.		
McDonald, Harold H. H.	I.C.	McDonald, John L. L. Wagner	D.C.
A.B. 1945, D. C. C. University		McDonald, Arthur Samuel	I.C.
McDonald, J. J. J. J.	S.C.	McDonald, John J. J.	N.C.
A.B. 1942, A.M. 1949, University of South Carolina		McDonald, David T. T.	Va.
McDonald, Mary L. L.	Tenn.		
McDonald, John G. G. G.	I.C.		
McDonald, Joe Chester	I.C.		







Moore, Maurine A.B. 1928, Texas Christian University	Tex	Mott, Howard Otos A.B. 1941, Union College	Ill
Moore, Rattle Tatum	D.C.	Moulton, John Peter	D.C.
Moore, Ronald Worth	Fla	Moulton, Barbara A.B. 1937, University of Chicago	D.C.
Moore, Walter Harvey, Jr. A.B. 1937, Brigham Young University	Utah	A.M. 1940, The George Washington University	D.C.
Moore, Warren Horace	D.C.	Moulton, James Cogswell	D.C.
Moore, William Fern	Tex	Mouranes, Henrietta	Obs
Morris, Francis Michael	D.C.	Moxham, Robert M. B.S. 1942, Ohio State University	Md
Morris, Mary Margaret	W.Va	Moye, Marjorie Elizabeth	Me
Morris, Thomas Francis B.S. 1941, Louisiana Polytechnic Institute	La	Moyer, Ruth Louise	Md
Morris, Vernon Joseph	Mass	Muchmore, Sally Poole LL.B. 1929, National University	W.Va
Morris, Mary	Conn	Mudge, David Edward B.S. 1937, A.M. 1938, West Virginia University	Md
Morrissey, Muriel Angete	N.Y.	Mudge, Harold Robert	D.C.
Morgan, Anne	Ind	Muchlhouse, William	Mon
Morgan, Augusta Anne	Me	Muhonen, Neil Nicholas	S.D.
Morgan, Herbert	Conn	Muilenburg, Robert A. A.B. 1943, The George Washington University	Me
Morgan, Richard Stuart A.B. 1939, Harvard University	N.H.	Muir, Elizabeth Louise	Mich
Morgan, Robert Eugene B.S. 1941, Temple University	W.Va	Muir, Neil B.S. 1941, University of Michigan	Pa
Morgan, Robert Franklin	N.J.	Mull, Edward Leo A.B. 1939, St. Joseph's College (Pa.) A.M. Ed. 1941, Temple University	Wash
Morgan, Zeph M.	D.C.	Mull, Eugene John A.B. 1941, University of Washington	Me
Morgan, John Thomas	Me	Mull, John J.	Conn
Morgan, James Fred	D.C.	Mullen, James Kane B.S. 1941, University of Idaho	D.C.
Morgan, John William B.S. 1948, Ohio State University	Va	Mullendore, Betty Jane	D.C.
Morgan, Dorothy H.	D.C.	Muller, Dorothy Marjorie	N.Y.
Morgan, James	Pa	Muller, Paul John	D.C.
Morgan, Vernon	Mass	Mullins, Elwood Hatcher	Mass
Morgan, Lorna Margaret	D.C.	Mulvey, June Gertrude	Va
Morgan, Herbert F.	Pa	Mulvey, Robert Joseph	D.C.
Morgan, Louis Gregory	Mass	Munday, Herbert Leslie	Va
Morgan, Jonathan A.B. 1941, Rollins College	Calif	Munden, Kenneth White	D.C.
Morris, Dorothy Frances A.B. 1940, University of California	Va	Mundy, Ruth Goodwin	Me
Morris, Francis Jeanette Morrison	Conn	Munoz-Lee, Luis	Me
Morris, George	D.C.	Munro, Catherine Chenoweth	Ind
Morris, Margaret Pauline	Me	Munro, Helen Baird	Me
Morris, Richard Harold A.B. 1940, Miami University	N.C.	Munson, Betty Maxine	Me
Morris, Sarah Elizabeth	Conn	Munson, Eleanor Gertrude	N.Y.
Morris, Arthur	D.C.	Munson, Gerald Luther	D.C.
Morris, Mary Gertrude	D.C.	Munson, Hazel Marie	S.D.
Morris, Robert Leland B.S. 1948, Stephen F. Austin State University	Tex	Munson, Hilda	
Morris, Ruth Rose	Mass	Munson, Hugh Benjamin B.S. 1941, University of South Dakota	D.C.
Morris, Emily William	D.C.	Munson, Newell	
Morris, John Anthony A.B. 1940, Georgetown University	N.Y.	Munson, William	
Morris, Martin Gabriel A.B. 1944, Wellesley College	D.C.	Munson, William	
Mortenson, Edgar Emerson A.B. 1944, Cornell College	D.C.	Munson, William	
Mortenson, William A.M. 1947, University of Minnesota	D.C.	Munson, William	
Mortfield, Charles	D.C.	Munson, William	
Morton, Conrad Vernon A.B. 1928, University of California	D.C.	Munson, William	
Morton, Fred Eugene	Va	Munson, William	
Morton, Robert E.	Ind	Munson, William	
Moser, Roger W. Jr.	D.C.	Munson, William	
Moss, Gregory Jane	Ark	Munson, William	
Mosher, Anne Niles LL.B. 1948, Southeastern University	Me	Munson, William	
Mossman, Margaret A.B. 1949, Guilford College	Mass	Munson, William	
Mote, F. Wade	Colo	Munson, William	



Murphy, John Thomas	N.Y.	Nave, William Frederick	Ky.
Murphy, Joan Catherine	D.C.	Naxon, Cecil Aubrey	Va.
AB 1941, The George Washington University		Naxos, Lawrence Woodruff	Utah
Murphy, Joseph Alexander	D.C.	Nazareth, Lucy	Pa.
AB 1942, University of Maryland	Md.	Neaman, Anne	D.C.
Murphy, Katherine Lpton	D.C.	Nealy, Katherine	D.C.
Murphy, Kenneth Robert	Kans.	Neenan, Mildred Emma	D.C.
Murphy, Margaret N. H. S.	Md.	ES 1927, Route Island State College	
AB 1941, The George Washington University		ES 1927, Yale University	
Murphy, Robert Edward	D.C.	Neel, Samuel Jean	Ark.
Murphy, Thomas Martin	Ind.	Neenan, Albert John	Utah
BS 1941, University of Notre Dame		BS 1942, Utah State Agricultural College	
Murray, Edwards Edw. Jr.	D.C.	Neilsen, Robert Oliver	D.C.
Murray, Frances Virginia	D.C.	Neilsen, Bertha	D.C.
AB 1941, Santa Cecilia		Neilsen, Eva	Pa.
Murray, Helen Verdian	D.C.	Neilsen, Harold Robert	Arg.
Murray, James Justice	Mass.	Neilsen, Florence Bethel	N.Y.
Murray, Joseph John	Ind.	Neilsen, Jean Virginia	Va.
Murray, Marshall James	D.C.	Neilsen, John I.	Utah
Murray, Eugene Foster	Tex.	Neilsen, Kenneth Paul	ME.
BS 1942, Florida Southern College	Fla.	Neilsen, L. J.	Neb.
Murray, Ralph Clayton	Va.	Neilsen, Lyle Lyne	W.Va.
Murray, Robert L.	D.C.	Neilsen, Patrick Elmhurst	Conn.
Musulin, Ruth Lowens	D.C.	Neilsen, Victor LeRoy	Utah
Musulin, George Harrell	D.C.	Neilsen, Fred Robert	Tex.
Mus, Eugene Sylvia	D.C.	Neilsen, Sylvester Daniel	Mass.
Musgr, John George	Md.	AB 1941, University of New Hampshire	
AB 1941, University of Missouri		Neimark, John	Miss.
AB 1942, The George Washington University		AB 1948, MBA 1949, Harvard University	
Muth, Herbert Frank	Ind.	Neenan, Clara Jean	D.C.
Muth, Lin	D.C.	Neenan, William Edward	D.C.
Muth, Lillian Phyllis	Pa.	AB 1942, The George Washington University	
BS 1941, University of Pittsburgh		Neuberger, Mary Elizabeth	N.Y.
Muth, Robert H. Jr.	Md.	Neuf, Cecile Anne	N.Y.
AB 1941, Princeton University		Neuf, John Henry	D.C.
Muth, Peter Bruce	Pa.	LL.B. 1948, Georgetown University	
Michael, Rex Leon	Mont.	Neuman, Frank Louis	D.C.
AB 1941, Montana State University		BS 1941, LL.B. 1944, University of Louisville	
Mykowski, Walter Joseph	Mass.	JD 1941, The George Washington University	
N		Neuman, Margaret Marie	Md.
Nadler, Sarah	N.Y.	AB 1948, The George Washington University	
Nadler, Mary Anne	D.C.	Neubauer, I. George Jr.	Ind.
BS 1948, Wheaton Teachers College		Neubauer, Patricia Estelle	Va.
Nade, Ruth Virginia	Va.	Neubauer, Anne Kay	Pa.
Nade, Betty Emil	D.C.	Neubauer, Ruth Anna	D.C.
Nade, George J.	Mich.	Neubauer, Charles Gerald	Conn.
Nade, Lillian Sophia	W.Va.	Neubauer, Charles Edward	D.C.
Nade, Karl	N.Y.	Neubauer, F. Bertha	Md.
Nadman, Lillian Lorraine	D.C.	Neubauer, Zola Dorothy	D.C.
Nadman, Robert Morton	D.C.	Neubauer, Stanley Raim	D.C.
Nadman, James Y.	D.C.	Neubauer, L. J.	Conn.
Nadman, Samuel	D.C.	Neubauer, Richard Melvin	Conn.
AB 1945, New York University		Neubauer, Robert Colton Jr.	D.C.
AM 1941, Columbia University		Neubauer, Ned Clayton	Kans.
Nadman, Alice Jane	D.C.	Neubauer, Raymond Richard	D.C.
Nadman, Virginia Ann	D.C.	Neubauer, Donald Allen	Vt.
Nadman, Henry Hart	Tex.	Neubauer, Walter Lloyd	D.C.
Nadman, Walter	D.C.	BS 1942, The George Washington University	
AB 1941, Atlantic Christian College		Nee, Charles M. Kelley	D.C.
Nadman, William Henry	N.Y.	AB 1942, University of North Carolina	
Nadman, Ruth L.	N.Y.	Neuf, John Edward	Mich.
Nadman, Sarah Louise	N.C.	Neuf, F. Thayer	W.Va.
AB 1941, University of North Carolina		Neuf, Henry Thomas	Ma.
Nadman, Albert Irving	D.C.	AB 1941, University of Alabama	
Nadman, Eugene Ruth	D.C.	Nichols, John Taylor	N.C.
Nadman, Alexander	N.Y.		
AB 1928, Brooklyn College			



Nichols, Phyllis Annette	DC	Norton, Thomas Francis	MA
AB 1942, The George Washington University		BBA 1922, Boston University	
Nichols, Evelyn Dorothy	Vt	ILB 1928, Georgetown University	
Nichols, Wilma Louise	Me	Norton, Walter Stanley	
Nichols, Harry Jackson, Jr	Ohio	BS 1948, Indiana State Teachers College	N
Nichols, Robert Warren	Iowa	Norton, Oscar Fritz, Jr	NY
Nichols, Walter Stanley, Jr	DC	Norton, Marjorie Bertha	
BS 1948, The George Washington University		AB 1942, The George Washington University	
Nichol, Anna D	La	Nott, Joseph George	NY
Nichols, Agnes	Wa	Norton, Philip Sylvia	NY
Nichols, Jane Kelly	Va	Norton, Joseph A. Anne	NY
BS 1929, AM 1941, The George Washington University		Norton, Margaret Paul	NY
Niemeyer, Gertrude Elizabeth	DC	Norton, John Alfred	NY
AB 1947, The George Washington University		Norton, Arthur Charles	NY
Nims, Victor E	NY	Norton, John Francis, Jr	NY
Nimberg, Leonard D	Pa	Nichols, Jane Irene	NY
Nims, Joseph	Me	Nye, Mary Winifred	NY
BS 1928, College of St. Thomas		Nye, Eugene William	
Niska, Lily Rose	DC	BS 1941, University of Maryland	
AB 1941, The George Washington University		Nyquist, Mabel Margaret	O
Nimrod, Barbara	Pa	Oakes, Alfred Chappell	Pa
Nims, Jane	DC	Oakes, Donald Arthur	Pa
Nims, Harold	DC	Oakes, Arthur L	Pa
Nims, Margaret	Me	Oakes, Lawrence Charles	Pa
Nims, Clara Bertha	Pa	Oakes, Laura Mary	Pa
Nimmo, Janet Kingston	Me	Oakes, Michael Leonard	Pa
Nink, Helen Elizabeth	Pa	Oakes, Robert	Pa
Nink, Thomas Gold	Va	Oakes, Walter Joseph	Pa
Nink, Norman Frank	DC	Oakes, Joseph Louis	Pa
Nink, Joseph Samuel	Va	Oakes, Aaron Kathryn	Pa
Nink, Norman Kenneth	Wa	Oakes, Betty Rose	Pa
Nink, William Edward	Pa	Oakes, Carolyn Margaret	Pa
Nink, Louis Richard	Pa	Oakes, Eugene Jacqueline	Pa
Nink, Ruth Helen	DC	Oakes, Joseph K	Pa
AB 1947, Woman's College of the University of North Carolina		BS 1942, University of Colorado	Pa
Nink, Lawrence Angus	DC	Oakes, Louis Eugene	Pa
Nink, Robert Kenneth	Pa	Oakes, University of New Hampshire	Pa
Nink, Michael Eugene	Kan	BS 1946, Syracuse College	Me
BS 1947, Kansas State College of Applied Science		O'Brien, Thomas Joseph	Pa
Nink, Bernard Lee	Kan	O'Brien, Gerald David	Pa
Nink, Robert Dorwood	SD	BS 1941, The George Washington University	DC
Nink, Walter Johnson	Va	O'Brien, Hugh Martin	Pa
Nink, Marion Kruman	DC	O'Brien, John Catherine	Me
Nink, Donald Arthur	NY	O'Brien, Joseph Felix	Me
AB 1947, University of Rochester		O'Brien, Mary Amanda	Pa
Nink, Frank Tipton	DC	O'Brien, Catherine Lee	Pa
Nink, Jane L	Pa	O'Brien, Tom Walter	Pa
Nink, Paul Benson	Pa	O'Brien, Margaret Virginia	Pa
Nink, Ronald Frederick	Tex	O'Brien, John David	Pa
AB 1946, University of Texas		O'Brien, John Joseph	Pa
Nink, Dana Gordon	Me	O'Brien, Joseph Anthony	Pa
AB 1948, University of Kansas		O'Brien, Maria Frances	Pa
Nink, Max Henry	Ohio	O'Brien, Thomas James	Pa
AB 1948, Ohio State University		O'Brien, Donald	Pa
Nink, Robert H	Wa	O'Brien, Francis Helen	Pa
Nink, Stanley Underwood	NJ	O'Brien, Joseph	Pa
AB 1947, Colgate University		O'Brien, John Joseph	Pa
Nink, Victor	Me	O'Brien, Patricia Anne	Pa
AB 1949, AM 1949, University of Kansas		O'Brien, Mary Louise	Pa
Nink, Howard Rand	DC	O'Brien, Patricia Lawrence	Pa
AB 1942, The George Washington University		O'Brien, Ted Joseph	Pa
Nink, Hugh Stanton	Nev	O'Brien, Edward John	Pa
Nink, James K	Me	O'Brien, Anna Mae	Pa
Nink, Margaret Bell	DC	O'Brien, Robert William	Pa
		O'Brien, Marion Jane	Pa
		AB 1942, MS 1947, University of Illinois	Pa



Pagluso, Lucile	Miss	Patterson, Charlotte Deal	DC
Pagter, Elizabeth Eugenia	D.C.	Patterson, Donald MacKelvy	NY
Paidakovich, Matthew Joseph	Pa	B.S. in C.E. 1930, Bucknell Uni-	W
Paine, Richard Porteous	Va	versity	NH
Painter, Eleanor Margaret	Pa	Patterson, Harold Eugene II	W
Pallier, Edward Lawrence	Md	Patterson, Harry O., Jr.	DC
Palfreyman, Jean Margaret	Wash	A.B. 1920, Municipal University of	NC
Pallieri, Julia Veronica	N.J.	Omaha	Pa
Pallansch, Margaret Mary	D.C.	Patterson, Martha McCain	DC
A.B. 1940, Trinity College (Wash-		Patterson, Mrs. Perryman	NC
ington, D. C.)		Patterson, Rube S.	Pa
Pallotta, Elizabeth Mary	VI	Paul, Edell George	Pa
Palmer, Erma Edith	NY	Paul, Henry James	Pa
Palmer, Grace Crosswell	Md	Paul, Peter	Pa
Palmer, Harold Arthur	Idaho	Paul, Henry Monroe, Jr.	Pa
B.S. 1941, College of Idaho		Paul, George Constant, Jr.	Pa
Palmer, John Gilbert	Md	Paul, Scott Langthorne	Pa
Palmer, Patricia Anne	D.C.	Paulsen, Helen Louise	Pa
Palmer, Richard Emory	D.C.	Payne, Ernest William	Pa
Palmer, Russell Hayden	Wash	Payne, George Louis	Pa
Palmer, William Carlton	Md	Payne, Howard White	Pa
Palmer, Douglas Edward	Va	Payne, Isaac Goodrich	Pa
Palmer, Florence Elizabeth	D.C.	Payne, Urdal Edwin	Pa
Palmer, Gaius Kenneth	Miss	Payne, Martin Wallace	Pa
Palmer, Jean McAlpine	Va	A.B. 1937, New Jersey State Teach-	Pa
Pamson, Viola	D.C.	ers College	Pa
Pamphlett, Ruth Elizabeth	Wash	Payton, Paul Elmer	Pa
B.S. 1942, Lower State College of		Payton, Robert James	Pa
Agriculture and Mechanic Arts		Pestovsky, Robert Vincent	Pa
Panieton, Rita Mary	D.C.	B.S. 1941, University of Pennsylvania	Pa
Panist, Anne	D.C.	Peacock, Elizabeth Florence	Pa
Parker, Norman	N.J.	A.B. 1936, University of Colorado	Pa
A.B. 1936, New York University		Pease, Helen Roberta	Pa
Pappas, Antonia Nina	D.C.	Pease, Lester	Pa
Pardoll, Margaret B.	D.C.	A.B. 1941, University of Pittsburgh	Pa
Papoukavay, John Emmanuel	D.C.	Peaslee, Ida Elaine	Pa
Parvate, Isaac Francis	D.C.	Peaslee, William	Pa
Parde, de Zola, Patricia Gail	Md	A.B. 1935, Temple University	Pa
A.B. 1940, Hunter College		Peaslee, Morris	Pa
Pardee, William	Pa	A.B. 1941, The George Washington	Pa
Parley, Beresley Brooks	D.C.	University	Pa
Parry, Michael James	Pa	Pearson, Carl August	Pa
Parsons, Sarah Helen	Pa	A.B. 1925, A.M. 1930, Harvard	Pa
A.B. 1942, Smith College		University	Pa
Paris, Mary Doris	NY	Pearson, Mary Agnes	Pa
Park, Helen Dorothy	Pa	Peasinger, Charles W.	Pa
Parker, Clarence Odell	Va	Peck, Charles Bickford	Pa
Parker, Elizabeth Pope	Pa	B.S. 1916, State Teachers College	Pa
Parker, Grace Elizabeth	Pa	(Buffalo, N.Y.)	Pa
Parker, Harriet Payne	D.C.	Peck, Esther G.	Pa
Parker, John Elliott	D.C.	Peck, Mary Jane	Pa
Parker, Maurice	D.C.	Peck, Richard Clayton	Pa
A.B. 1930, Pennsylvania State College		Peck, V. Virginia	Pa
LL.B. 1942, University of Pittsburgh		Peckham, Helen Mary	Pa
Parkin, Keith O.	Pa	Peckham, Martin Eugene	Pa
Parkinson, Caroline B.	D.C.	Peckham, Raymond Green	Pa
Parkinson, Dee Rich	D.C.	A.B. 1941, York College	Pa
Parks, Albert Benning	D.C.	Peck, Wilfred Everett	Pa
Parks, Alice Ruth	D.C.	Peck, Mary Lou	Pa
Parks, James Erskine	D.C.	Peck, Lloyd DeVore	Pa
Parks, Patricia Elinor	D.C.	Pelaburg, Anne Corbin	Pa
Parmeter, Margaret Anne	D.C.	Pelley, Michael Anthony	Pa
Parrish, Alvin Edward	D.C.	Pelley, Ray Eugene	Pa
Parrish, Evelyn May	Md	Pelley, Russell Gilbert	Pa
Parrish, Violet Maxine	Pa	B.S. in E.E. 1945, Syracuse Uni-	Pa
Partlow, Kenneth Lawrence	Pa	versity	Pa
Pascal, Albert	N.J.	Pelzman, Jean D.	Pa
Pasche, Madeleine Jenny	D.C.	A.B. 1941, The George Washington	Pa
Pascoe, William	D.C.	University	Pa
Pastoriza, Thomas A.	D.C.	Pelzman, Michael	Pa
Patt, Harry L.	Pa	Pelletier, William Roger	Pa
Patt, Ruth Elise	Ky	B.S. 1942, Western University	Pa
Patrick, Verma Jean	D.C.	Pelletier, David Wood	Pa
Patten, Stanley Fletcher	D.C.	Pelrick, Jack Grover	Pa



Peterson, Joseph Edmund	N.Y.	Petty, R. M.	Tex.
Pennington, Carroll Murry	D.C.	Peterson, Vera	D.C.
Pennington, Claude Mitchell	Ark.	Peterson, Emma Allen	Wash.
Peterson, Norma Louise	D.C.	Ph.D. 1922, University of Wash-	
Peterson, Anna W. Woodmont	Va.	ington	
Peterson, Mary Washington		Peterson, Marie D.	Wash.
Peterson, William Roy	Tex.	Peterson, Elsie Marion	Va.
Peterson, Virginia	Mass.	Peterson, Ann Theresa	Pa.
Peterson, Edward	Va.	Peterson, Carl H.	Pa.
Peterson, Kenneth	Calif.	Peterson, Conrad Rege	Mass.
Peterson, Ruth	Mass.	Peterson, Catherine E.	Wash.
Peterson, Alice	D.C.	A.B. 1916, Clarke College (Iowa)	Iowa
Peterson, H. A. Vasey	D.C.	Peterson, Helen Louise	Va.
Peterson, Walter	D.C.	Peterson, Norman Osborn	D.C.
Peterson, William Robert, Jr.	D.C.	Peterson, Bernard Irving	D.C.
A.B. 1917, Princeton University	N.Y.	Peterson, Clara Emma	D.C.
B.S. 1928, College of the City of		Peterson, Lorena Emma	D.C.
New York		Peterson, George Ernest	Va.
Peterson, Carl A.	Ind.	A.B. 1914, College of William and	
Peterson, A. B.	Wash.	Marshall	
Peterson, David L.	D.C.	Peterson, Howard Matthew	D.C.
Peterson, Myer	D.C.	B.S. 1922, Wilson Teachers College	Tex.
Peterson, George	D.C.	Peterson, Joseph L.	Mich.
Peterson, Peter	W. Va.	Peterson, Louis James	Mich.
A.B. 1914, The George Washington	D.C.	Peterson, Margaret Wade	D.C.
University		Peterson, Margaret	Nev.
Peterson, Peter	D.C.	Peterson, Matthew Raymond	D.C.
Peterson, Helen James	D.C.	Peterson, Robert Kingsley	D.C.
Peterson, John	N.Y.	Peterson, Seymour Fred	Ill.
Peterson, Mary	D.C.	Peterson, Thomas Le Roy, Jr.	Md.
Peterson, Anna	N.Y.	Peterson, Virginia Scott	D.C.
B.S. 1914, Rutgers University (New		Peterson, Z. Doris	D.C.
Jersey College for Women)		Peterson, Barbara Elizabeth	Mass.
A.M. 1941, Columbia University	N.J.	A.B. 1917, Wellesley College	Calif.
Peterson, Nathan	D.C.	Peterson, Doris	Ill.
Peterson, Mae	Tex.	Peterson, John Daniel	
Peterson, Charles Henry	D.C.	A.B. 1914, LL.B. 1916, University	
Peterson, Emma Marie	Neb.	of Illinois	
Peterson, Anna Leon	N.Y.	LL.M. 1917, Harvard University	
Peterson, Robert Lines	D.C.	Peterson, Daniel Thaine	Md.
Peterson, R. A. Allen	Ind.	Peterson, George	Pa.
B.S. 1919, Utah State Agricultural		Peterson, Doris K.	D.C.
College		Peterson, Francis Strong	D.C.
Peterson, Stanley Wilhelm	N.Y.	Peterson, Janet Kathleen	N.Y.
A.B. 1912, The George Washington		Peterson, Margaret Ann	D.C.
University		Peterson, Royce Nathan	Maine
Peterson, Anna Leon	Iowa	Peterson, Robert George	D.C.
A.B. 1912, A.M. 1924, Wellesley	D.C.	Peterson, Zack Daniel	Okla.
College		Peterson, Jack Douglas	Okla.
Peterson, Stanley Wilhelm	N.Y.	A.B. 1942, University of Oklahoma	D.C.
A.B. 1912, The George Washington		Peterson, George Almas	Ohio
University		Peterson, Jean Ruth	
Peterson, Anna Leon	Iowa	A.B. 1941, B.E. 1942, University	
A.B. 1912, A.M. 1924, Wellesley	D.C.	of Cincinnati	
College		Peterson, Imogene Martha	Ga.
Peterson, Stanley Wilhelm	N.Y.	Peterson, Pauline Mae	Pa.
A.B. 1912, The George Washington		A.B. 1912, Asbury College	
University		Peterson, Helen	D.C.
Peterson, Anna Leon	Iowa	Peterson, I. Rex	Tex.
A.B. 1912, A.M. 1924, Wellesley	D.C.	Peterson, Dee Whitford	Idaho
College		Peterson, Joseph	N.Y.
Peterson, Stanley Wilhelm	N.Y.	B.S. 1941, College of the City of	
A.B. 1912, The George Washington		New York	
University		Peterson, Joseph	N.Y.
Peterson, Anna Leon	Iowa	B.S. 1941, New York University	
A.B. 1912, A.M. 1924, Wellesley	D.C.	Peterson, Samuel	D.C.
College		Peterson, Anna Louise	Tex.
Peterson, Stanley Wilhelm	N.Y.	Peterson, Elizabeth Ann	Colo.
A.B. 1912, The George Washington		Peterson, Mabel Channing	D.C.
University		Peterson, Raymond Arthur	Mich.
Peterson, Anna Leon	Iowa	B.S. 1942, Michigan State College of	
A.B. 1912, A.M. 1924, Wellesley	D.C.	Agriculture and Applied Science	N.Y.
College		Peterson, Samuel Jr.	
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 1912, The George Washington			
University			
Peterson, Anna Leon	Iowa		
A.B. 1912, A.M. 1924, Wellesley	D.C.		
College			
Peterson, Stanley Wilhelm	N.Y.		
A.B. 191			



Pitchford, Harry Duval	Okla.	Porterfield, Virginia Thomson	Okla.
A.B. 1940, University of Oklahoma		B.S. 1942, Brenau College	
Pittman, Marjorie Audrey	Mass.	Porterfield, William Graham	Okla.
Pittard, Othello Edith	D.C.	Porter, Ben	Ariz.
Pittsford, Corbett Lawton E.	D.C.	B.S. 1916, B.A. 1916, University of	
Pittman, Irma F.	Neb.	Ariz.	
B.S. 1928, University of Nebraska		A.M. 1942, The George Washington	
Pitts, Jack D.	Ga.	University	
A.B. 1937, The George Washington		Porter, Irene	
University		Port, Richard Freeman	
Pitts, Martha Kathryn	N.C.	A.B. 1941, Pomona College	
Pitts, Robert Raymond	MI	Porter, Hugo Arnold	
A.B. 1934, University of Maryland		Porter, John Arthur	
Pitzer, John Samuel	D.C.	Porter, Ralph E.	
Pitzer, Samuel	D.C.	Potts, H. O. Olin	
Pitzer, Vernon	D.C.	Potts, Robert	
Platt, Charles Hyatt, Jr.	N.Y.	Potts, John N. Ellis	
A.B. 1936, Colgate University		Potts, Mary Nell	
Platt, Howard	Va.	Potts, George Lawrence	
Plattman, Cornelius Levasseur	Orge.	A.B. 1918, The George Washington	
A.B. 1942, Haver College		University	
Platt, Myra Wilson	D.C.	Powell, Louise Conway	
B.S.S. 1941, College of the City of		A.B. 1941, The George Washington	
New York		University	
Platt, Myra	D.C.	Powell, Mabel	
Platt, Rachel	D.C.	Powell, Mary Kenneth	
Platts, Esther Estelle	W.V.	A.B. 1927, Agnes Scott College	
Platts, Robert Lee	D.C.	A.M. 1922, Columbia University	
Platts, Raymond Denard	D.C.	Poyer, James Harry	
Plattner, Joseph Eldridge	D.C.	Poyer, Francis Roger	
Plattner, Margaret Grace	Ill.	Poyer, Patricia	
Platt, John H., Jr.	I.C.	Poyer, Walter Alton	
P. Long, Virginia	Ind.	Praeger, Herman	
Pleasant, Robert Alfred	D.C.	Praeger, R. Ross	
B.S. 1941, Massachusetts Institute of		Praeger, Robert DeVanni	
Technology		Praeger, Louis Lee	
Pleasant, Susan	Pa.	Praeger, Warren G.	
Pleasant, Ruth Leah	D.C.	Praeger, Catherine Williams	
Pleasant, Samuel Boyce III	D.C.	Praeger, Mary Hampshire	
A.B. 1941, University of Kentucky		Praeger, Charles	
Pleasant, Anna Mae	Mass.	Praeger, Ruth Evelyn	
Pleasant, Mary Lee	N.Y.	B.S. 1910, M.S. 1911, M.A. 1912,	
Pleasant, Jerome Lee	D.C.	State College of Agriculture and	
Pleasant, Samuel	D.C.	Applied Science	
Pleasant, William Bryan	D.C.	Praeger, Thomas Eugene	
Pleasant, Harold Arnold	D.C.	Praeger, Victor E.	
Pleasant, Charles Edward	Va.	Praeger, Barbara	
Pleasant, John Francis	W.V.	Praeger, Orville Warren	
Pleasant, John Robert	Okla.	B.S. 1911, E.E. 1913, M.S. 1914,	
Plevins, Arthur Francis	Calif.	1912, Stanford University	
Plemeritz, Frances Mary	D.C.	Praeger, Gilbert Woodrow	
Plemeritz, Louis	N.Y.	A.B. 1910, Ohio State University	
A.B. 1942, The George Washington		Praeger, Iose S.	
University		Praeger, Helen Louise	
Plemeritz, Philip	D.C.	Praeger, John Wellington	
A.B. 1938, University of Pennsylvania		Praeger, Leigh Louise, Jr.	
Plemer, Charles McHenry, Jr.	Calif.	Praeger, Moses Arnold	
Plemer, Hartley Leonard	Mass.	Praeger, Mary E. Sherwood	
B.S. 1942, University of Michigan		A.B. 1940, Denison University	
Plemer, Catherine Esther	D.C.	Praeger, William	
Plemer, Catherine Marshall	MI	A.B. 1941, The George Washington	
Plemer, John Courtney	D.C.	University	
Plemer, Ernest R.	Mo.	Praeger, William Baker	
A.B. 1918, University of Missouri		A.B. 1918, Furman University	
Plemer, Kathleen Mary	D.C.	Praeger, Isabel	
Plemer, Valerie Lee	Va.	B.S. 1941, Wilson Teachers College	
Plemer, Valentina C.	Me.	Praeger, R. Anthony	
Plemer, Nathan	N.Y.	Praeger, Earl Walter	
B.S. 1912, Columbia University		Praeger, Patsy Carter	
Plemer, Fortunato	D.C.	B.S. 1918, College of William	
L.B. 1910, The George Washington		and Mary	
University		Praeger, Leon	
Porras, Rose Marie	Patmos	B.S. 1918, College of the	
Porter, Bobbie Roberta	Okla.	City of New York	



Ray, John George, Jr	D.C.	Rennoll, Sala Romaine	Pa.
Raymond, Don E.	Okla.	Reno, Ruth Jean	D.C.
Raymond, John	N.Y.	Resig, John Vincent	N.J.
Rea, Edward L.	Calif.	Resnick, Solomon	D.C.
A.B. 1942, University of California		B.S. 1939, Yale University	D.C.
Read, Jeanne Elinor	D.C.	Respass, Frances Buff	D.C.
Read, Mary L.	La.	Resserger, William James	D.C.
A.B. 1911, Tulane University of Louisiana		Reuter, Francis Jean	
Ream, Donald F.	Ind.	B.S. 1924, Columbia University	
Reaser, Robert Louis	Ind.	A.M. 1942, The George Washington University	D.C.
Reback, William	D.C.	Reuter, Frederick Turner	D.C.
Rebert, Alice Catharine	D.C.	Reynolds, Cedric Okell	
Reck, Thomas Carl	Conn.	A.B. 1928, A.M. 1932, West Virginia University	W.Va.
A.B. 1937, Dartmouth College		Reynolds, Dana Drummond	
M.B.A. 1939, Harvard University		A.B. 1930, West Virginia University	Fla.
Reed, William George	Mich.	Reynolds, Fletcher P., Jr.	Okla.
Reid, M. Able Price	D.C.	Reynolds, Frank Miller, Jr.	
Reid, John, Peter	Id.	A.B., LL.B. 1939, University of Oklahoma	Okla.
Reid, Fitzgerald Graham	Va.	Reynolds, Phyllis Ann	Okla.
Reid, James Merritt	Id.	A.B. 1941, University of Oklahoma	Pa.
Reid, Kenneth, LaRue, Jr.	Pa.	Rheuban, Sidney	D.C.
Reid, Morgan Louise	Ind.	Rhine, Marv Elizabeth	
Reid, Robert Charles	D.C.	Rhodes, Elva M.	N.C.
Reid, Robert Edward, Jr.	Neb.	B.S. 1934, University of Washington	Tex.
Reid, Velma Dean	La.	Rhodes, Hughes Jennings, Jr.	
Reine, Olive Sarah	Mo.	Rice, Ben Herbert III	
Reid, Roy Franklin	D.C.	A.B. 1941, LL.B. 1942, University of Texas	D.C.
Rees, Bryant Fay		Rice, David L.	Va.
L.B. 1941, The George Washington University		Rice, Jack Donald	
Rees, Elias Davis	Utah	Rice, James E.	
Reese, Adele Lorraine	D.C.	A.B. 1939, The George Washington University	D.C.
Reiser, Leta Lynne	Ill.	Rice, Theron Jennings	Ind.
Reiser, Charles George	Va.	Rice, William Blair	Va.
Reeves, Robert Axtell	Iowa	B.S. 1941, Indiana University	D.C.
Reger, Sarah Harriet	D.C.	Rice, William Hugh	
A.B. 1936, Goucher College		Rich, Edith Mynette	
B.S. 1939, Wilson Teachers College		A.B. 1932, Trinity College (Washington, D.C.)	N.I.
Reis, Alford	Mass.	M.S. 1936, St. Louis University	D.C.
Reis, Joseph S.	W.Va.	Rich, Edward John	
Reiser, Rosemary Lucille	N.Y.	A.B. 1939, Brooklyn College	D.C.
Reich, Ruth R. G.		Rich, Harry L.	
A.B. 1940, Brooklyn College		Rich, Irene Silverman	D.C.
Rein, Clara Rosemary	D.C.	B.S. 1940, Wilson Teachers College	D.C.
Rein, Teresa Joseph	Pa.	Richards, Allen K.	
Reid, Alexander Blain	D.C.	Richards, Channing Leathers	
Reid, Charles L. Ford, Jr.	Mass.	M.E. 1934, Cornell University	
Reid, Donald Lee	Va.	LL.B. 1941, The George Washington University	Utah
Reid, Spencer Beal	Calif.	Richards, Gray Adams	Texas
Reid, Stella M.	N.C.	Richards, Latta	N.I.
Reidy, Joseph Carey	Conn.	Richardson, Catherine Margaret	Pa.
Reidy, C. Frank	Pa.	Richardson, Elinor LaVina	
Reilly, James Basil	Pa.	A.B. 1937, University of Dubuque	Wyo.
Reilly, Lila Albert	Id.	Richardson, John William	N.Y.
B.S. 1940, College of the City of New York		B.S. 1941, University of Wyoming	D.C.
Rein, Milton	N.Y.	Richardson, Lee Francis	Tex.
Reinecker, Howard Keith	Kans.	Richardson, Margaret Merz	
Reiss, Betty E.	N.I.	Richardson, Mary Ann	
Reiter, Robert Henry	D.C.	A.B. 1926, Mary Hardin-Baylor College	D.C.
B.S. 1942, Ohio State University		Richardson, Paul David	W.Va.
Reitman, James Stuart	N.J.	Richardson, Robert Marrion	D.C.
B.S. 1938, New York University		Richey, Alice M.	
Relis, Miriam Treisman	D.C.	A.B. 1941, The George Washington University	Ill.
A.B. 1942, Brooklyn College		Richey, Charles Moore	Mass.
Remington, Joseph Joy	Ohto.	Richia, Rita Rachelle	
Remlein, Madaline Kintner	Va.		
Ph.B. 1929, University of Chicago			
A.M. 1932, Columbia University			
Ph.D. 1933, Sorbonne University			
Remson, Elizabeth Jane	D.C.		
Renneke, Ruth	Mich.		
Renner, Bettie Ellen	D.C.		



Students Registered

413

Richman, Leonard David	Ill	Roberts, June B	DC
AB 1942, Harvard University		AB 1934, Pennsylvania State College	
Roberts, S. J. J.	NY	LL.M. 1938, University of Pittsburgh	
B.Chem.E. 1940, College of the City		Roberts, Marion S	DC
of New York		Roberts, Patricia	Ind
Richter, Arnold Franz	DC	Roberts, Richard Mansfield	Va
Richter, Elmer Francis	Okla	Roberts, Ruth Elaine	Wis
Richter, Stephanie	Conn	Roberts, Sarah Elizabeth	Calif
Richter, Isabelle Mary	Tex	AB 1931, University of California	
Richter, Helene	DC	at Los Angeles	
Richter, Betty Bailey	DC	B.S. in L.S. 1932, University of	
Richter, Alice	DC	Washington	
Richter, Mera Mann	DC	AM 1934, The George Washington	
Richter, Jesse A.	DC	University	
Richter, Robert Henderson, Jr	DC	Roberts, Virginia	DC
Richter, Louis Edward	DC	Roberts, Virginia	NY
Richter, Robert Rosenberg	DC	AB 1932, Hunter College	
AM 1931, Hunter College		Roberts, William Wesley, Jr	Ark
AM 1931, Columbia University		LL.B. 1939, Washington College of	
Richter, William Joseph	Pa	Law	
AB 1932, Allegheny College		Roberts, George Ramsay	DC
Rick, Mary Teresa	Conn	Roberts, John W. Ward, Jr	Fla
Rick, Ralph Lee	Va	Roberts, Marjorie	Ala
Rice, William Curtis	Ind	Roberts, Max Butler	Ill
Richter, Irene Anne	W Va	Roberts, Mildred Jones	DC
Richter, Cathryn Ann	MD	AB 1914, Landon College	
Rice, David Lermond	DC	Roberts, William Smith	DC
Rice, Louise Catherine	DC	Riley, Edgar A. Jensen	DC
Riley, William James	Va	Riley, John P.	Va
B.S. 1935, State Teachers College		Riley, Jeanette Marguerite	NH
(Tex. Ala.)		Riley, Elsie	MD
Riley, Alice A.	Miss	Riley, Helen	SC
Riley, Lewis Alfred, Jr	Pa	Riley, James Watson	NY
Riley, Mary Alice Lewis	DC	AB 1936, LL.B. 1939, Harvard	
Riley, Mary Virginia	Va	University	
Riley, Barbara Alice	Ind	Riley, Lee Adams	Okla
Riley, Robert C.	Va	B.S. 1935, University of Oklahoma	
B.S. 1939, The George Washington		AM 1937, The George Washington	
University		University	
Riley, Robert R.	DC	Robinson, Lois Marvin	Tex
Riley, Louis Mark	Ind	AB 1931, Southwestern University	
Riley, Alice	Okla	Robinson, John Wesley	Va
Riley, George Thomas	Conn	Robinson, Louis	DC
Riley, Louis Joseph	Conn	Robinson, Margaret Helen	ND
AB 1936, Boston College	Miss	Robinson, Pauline Ann	Pa
Riley, Norma Maud	NY	Robinson, Virginia Mae	DC
Riley, Frances Co. Averna	ND	Robinson, William Mathews	DC
Riley, Madeline Courtland	Ind	Rose, Maud Frankingham	Md.
Riley, William Jackson, Jr	Ind	AB 1937, University of Maryland	
Riley, Ruby L. Helle	N.I.	AM 1941, The George Washington	
Riley, Louis Reposa	Ind	University	
Riley, Robert E.	Va	Rose, Maud Frank	Va
B.S. 1941, New York University	N.I.	AB 1941, The George Washington	
Riley, George Dallas	Ind	University	
AB 1942, Stinson College		Rose, Louise Agnes	DC
Riley, Louis Charles	Ind	Rose, Thomas Lee	DC
Riley, Louis Charles	Ind	Rose, Monte David	DC
AB 1943, The George Washington	Ind	B.S. in M.E. 1932, Columbia Uni-	
University		versity	
Riser, Ralph Burke	Ind	Rose, Walter George Pine	Miss
Riser, William Henry	Ind	AB 1937, Mississippi State College	
Riser, M. Robert	Ind	at W. Va.	
B.S. 1936, Western	Ind	Rosen, Roy Frank	Ill
AB 1936, AM 1938, University of	Ind	Rosen, Louis Anthony	W Va
Missouri		Rosen, Louis Anthony	DC
AB 1936, AM 1938, University of		AB 1931, Dakota Wesleyan Univer-	
Missouri		sity	
AB 1936, AM 1938, University of		Rosen, Louis Anthony	PR
Missouri		AB 1931, The George Washington	
AM 1936, University of		University	
Washington		Rosen, Maud M.	SD
Rosen, David Wesley	DC	Rosen, Elizabeth Carson	N.I.
Rosen, Frank Stuart	Pa	Rosen, John Stanley	DC
		Rosen, Rachel Candler	DC



Rogers, William Gene	Iowa	Rothenberg, Helene E.	NY
Roggeveen, John Edward	Ill	A.B. 1941, Columbia University	NY
Rohrbaugh, Phyllis Josephine	Pa	Rothenberg, Leon	NY
Rollings, Kenneth M.	Ill	Rothfus, Helen Tefft	NY
Roman, Carmeline Grace	Pa	A.B. 1940, University of Rochester	NY
Romanoff, Melvin	N.Y.	Rothgeb, Edwina Yvette	NY
Romasco, Albert	Pa	Rothrock, John Blaine	NY
Romero, James John	Pa	A.B. 1942, The George Washington University	NY
Rosen, John Joseph	Pa	Rothschild, Eugene Berthold	NY
Romitti, Bruno Gino	Ill	LL.B. 1938, University of Kansas	NY
Romine, George Lohman	Va	Rothschild, Marianne	NY
Rommell, John Marshall	D.C.	Rothschild, Allen Thomas	NY
Rones, Evelyn	D.C.	A.B. 1948, Miami University	NY
Rood, Armistead Buckner	Mass	Ruff, Leon	NY
A.B. 1911, LL.B. 1938, Harvard University		Rumel, Theodore C.	NY
Rook, Joseph Samuel	Pa	Rumel, Katherine Hadley	NY
B.S. 1941, State Teachers College (Shippensburg, Pa.)		Rumel, Betty	NY
Rook, Rex Lewis	Okla	Rumel, Irene	NY
Rosen, Ivan Elmer, Jr.	D.C.	Rumel, Helen Therese	NY
Rosen, Blake Smith	Ill	A.B. 1949, College of St. Elizabeth	NY
B.S. 1927, Monmouth College		Rumel, Joseph	NY
A.M. 1931, University of Illinois		B.F.A. 1942, Syracuse University	NY
Ros, Rafael	Panama	Rumel, Clifford Alton	NY
Rosa, Dan Michael	N.Y.	Rumel, Robert Louis	NY
Rose, Charles Jules	W.Va	Rumel, Mary Mohler	NY
A.B. 1942, The George Washington University		Rumel, Robert Miller	NY
Rose, Elaine Marjorie	D.C.	Rumel, William Edwin	NY
Rose, Frank Singleton	N.Y.	Rumel, Mary Virginia	NY
A.B. 1942, Syracuse University		Rumel, Daniel	NY
Rose, J. Hugh	Va.	A.B. 1940, Brooklyn College	NY
A.B. 1942, The George Washington University		Rumel, Bessie June	NY
Rose, Jerome Victor	D.C.	Rumel, Marjorie Isabelle	NY
Rose, John Kerr	Ill	B.S. 1948, Municipal University of Washington	NY
A.B. 1926, A.M. 1931, Indiana University		Rumel, Bernard	NY
Ph.D. 1935, University of Chicago		Rumel, James Clay	NY
Rose, Mary Monica	Md	Rumel, Leonard Louis	NY
Rosen, Lawrence	D.C.	Rumel, Susan Lee	NY
Rosen, Rose	Pa	Rumel, Arthur Daniel	NY
Rosenberg, Christine Leland	Iowa	Rumel, Howard	NY
A.B. 1941, Vassar College		Rumel, Helen Krasnoger	NY
Rosenberg, Donald	Va	Rumel, Lawrence	NY
Rosenberg, Elinora G.	Ohio	Rumel, Melvin	NY
Rosenberg, Milton	N.Y.	Rumel, Robert Louis	NY
Rosenberg, Louise	D.C.	Rumel, Seymour Charles	NY
Rosenberry, William Ward	D.C.	B.M.E. 1941, New York University	NY
Rosenblatt, Donald Allen	D.C.	Rumel, Helen V. Baker	NY
Rosenblatt, William Allen	Tenn	Rumel, Frances Norton	NY
Rosenblum, Eleanor Bertha	D.C.	Rumel, Norma Elliott	NY
Rosenbeck, Raye	N.Y.	B.S. 1943, M.S. 1946, Massachusetts Institute of Technology	NY
Rosenthal, Carola	Va	Rumel, Morris	NY
Rosenthal, Harold	D.C.	Rumel, David S.	NY
Rosoff, Doris	Va	B.Chem.E. 1947, College of the City of New York	NY
Rosoff, Hazel Mae	N.Y.	M.Chem.E. 1949, Polytechnic Institute of Brooklyn	NY
Ross, Ann	D.C.	Rumel, Clifford N.	NY
Ross, Blanche Goldstein	Va	Rumel, John Hugh	NY
Ross, Bob	N.Y.	Rumel, Joseph V.	NY
Ross, Elaine Florence	D.C.	Rumel, Alexander Carst	NY
Ross, Irving Jerome	N.Y.	Rumel, Elizabeth	NY
Ross, Jackson Weaver, Jr.	Va	Rumel, Mildred Grace	NY
Ross, Joseph Hunter III	Md	Rumel, Della Marie	NY
Ross, Julian A.	Pa	Ruppenthal, Alice Audio	NY
Rossi, Selvino Salvador	N.Y.	Rusch, Ruth Constance	NY
Rote, Max Weymouth, Jr.	Md	A.B. 1940, Connecticut College	NY
A.B. 1936, The George Washington University		Rush, Thelma Nadine	NY
Roth, Florence Berdick	N.Y.	Rush, Bonnie	NY
LL.B. 1940, St. John's University		Rush, Isabelle Geraldine	NY
Roth, John Edward	D.C.	Ross, William Joseph	NY
Rothbard, Eleanor	N.Y.	B.S. 1942, Seton Hall College	NY

[illegible]

Satow, William John	Mo.	Scholtkin, Morris	N.Y.
A.B. 1939, B.S. in Med. 1942, University of Missouri		A.B. 1939, Brooklyn College	Pa.
Schaeffer, Francine L.	D.C.	Scholar, Selma	Pa.
Schaff, Herbert	N.Y.	Scholar, Rowland Wingfield	Pa.
Schaff, Murray Florence	Ind.	Schultz, John William	Pa.
Schaff, Martin	N.Y.	Schulz, Jack	Pa.
Schaefer, Richard McCabe	D.C.	A.B. 1942, The George Washington University	
Schaefer, L. Earl II	D.C.	Schulmaker, Mayme Frederica	Pa.
Schaefer, Kurt August	D.C.	Schupp, Ida Gertrude	Pa.
Schaefer, Michael Douglas	D.C.	Schwab, Francis Albert	
Schaefer, Michael Harriet	N.D.	A.B. 1936, University of Missouri	
Schaefer, Bertha	W.Va.	B.S. 1921, M.E. 1921, University of Hannover (Germany)	
Schaefer, Irving	D.C.	B.S. in Com. 1928, University of Cincinnati	
Schaefer, Evelyn A. Y.	D.C.	A.M. 1935, University of Maryland	Pa.
Schaefer, Mildred Edith	D.C.	Schwab, George Van Fossen	Pa.
Schaefer, Dorothy Rosemary	D.C.	Schwab, Zora Ernestine	Pa.
Schaefer, Beverly Jeanne	D.C.	Schwartz, Bella	Pa.
Schaefer, Albert Lawrence	D.C.	Schwartz, Daniel E.	Pa.
Schaefer, Margaret Pearl	Ill.	Schwartz, Elmer William	
B.S. 1936, Wheaton College (Ill.)		B.S. 1941, Kansas State College of Agriculture and Applied Science	Pa.
Schaefer, John Marvin	Calif.	Schwartz, Evelyn Katherine	Pa.
Schaefer, Theda C.	Wyo.	Schwartz, Helen Janet	Pa.
B.S. 1931, Spanish Normal School		Schwartz, Lester Irving	Pa.
Schaefer, William Edwin	Mid.	Schwartz, Louis Ann	Pa.
Schaefer, Robert Whitaker	Tex.	Schwartz, Marvin	Pa.
A.B. 1941, University of Texas		A.B. 1941, American University	Pa.
Schaefer, Barbara Ann	Mid.	Schwartz, Max	
A.B. 1942, The George Washington University		B.S. 1939, College of the City of New York	Pa.
Schwartz, Page M.	D.C.	Schwartzbach, Eleanor	
Schwartz, Anna Mary	D.C.	A.B. 1942, Hunter College	
Schwartz, Gustav Ernest	Tex.	J.D. 1944, The George Washington University	Pa.
Schwartz, Bertram Alexander	D.C.	Schwartzburg, I. H. Mae	Pa.
Schwartz, Isaac Garner	Okla.	Schwartzburg, Alexander William	Pa.
Schwartz, Letta M.	Iowa	Schwartz, Albert Paul	Pa.
A.B. 1927, Iowa State Teachers College		Schwartz, Alanson Caswell, Jr.	Pa.
Schmitt, Frederick Shade	N.Y.	B.S. 1940, Purdue University	Pa.
Schnyder, Hazel Elinor	Kans.	Schwarzman, Florence Thelma	Pa.
Schnyder, Mary Louise	Kans.	Schwinn, Evelyn C.	Pa.
Schober, Joseph Engelbert	Ill.	Schwinn, Elsie Paul	Pa.
B.S. 1938, University of Illinois		Schwitzer, Selma	Pa.
Schoch, John Albert	N.J.	Schwitzer, William	Pa.
Schoch, Robert Hamilton	N.J.	Schwitzer, Fay Calvin	Pa.
Schoechele, George Leslie	Ohio	Schwieger, Verlynn Dwight	Pa.
Schoene, Fred Carl	D.C.	Schwinn, Annabel	Pa.
Schoeneman, Aurene Annette	Iowa	Schworer, Ruth Louise	Pa.
Schoeneman, Robert Lee	D.C.	B.S. 1936, Wilson Teachers College	Pa.
Schoenfeld, Marion Reid	D.C.	Sciscient, Verdi Italo	Pa.
Schoenmaker, Maude Wilhelmina	Va.	A.B. 1942, University of Alabama	Pa.
Scholfeld, Betty Lou	Ill.	Sclafin, Frances	Pa.
Scholl, James Edward	Ind.	Sclafin, Rachel N.	Pa.
B.S. in M.E. 1934, University of Kentucky		B.S. 1941, The George Washington University	Pa.
Scholle, Henry Frank	Wis.	Siddle, Jean Florence	Pa.
Schorr, Lucille Irene	Pa.	Siddle, Alice	Pa.
Schreengast, Wayne Elsie	Iowa	Scott, Esther Webb	Pa.
Schreiber, Carl	N.Y.	A.B. 1926, The George Washington University	Pa.
Schreiner, Edmund Douglas	D.C.	A.M. 1934, Columbia University	Pa.
Schreiner, Stanley Warner	Va.	Scott, Elsie Alice	Pa.
Schreyer, Charles Henry	D.C.	Scott, Jean Elsie	Pa.
Schrier, Samuel	D.C.	Scott, Joe Edward	Pa.
Schrodt, Marie Louise	D.C.	A.B. 1940, Trinity University	Pa.
Schroeder, Albertus Nicholas, Jr.	D.C.	Scott, Loretta Eastman	Pa.
Schroeder, Elizabeth Neelham	D.C.	Scott, Madeline Mary	Pa.
Schroeder, Warren Haines	Nebr.	Scott, Marian E.	Pa.
A.B. 1912, University of Nebraska		A.B. 1917, The George Washington University	Pa.
Schroeder, William Peter	Iowa		
Schub, Sophie Sager	Mid.		
Schubert, Charles Williams	Kans.		
A.B. 1945, Baker University			
Schuck, Joseph Philip	Fla.		
Schuler, Leo Ross	D.C.		
Schulke, Herbert A. Jr.	N.D.		



Smith, Mary Emma	N Y	Smith, Oscar Lee	Tex.
AB 1922, Columbia University		Smith, Fred Schwartz, Jr.	Tenn.
Smith, Norma Virginia	D C	Smith, Robert	D C
Smith, Robert Emanuel	N Y	Smith, Victor	Va.
Smith, Robert M. Cohen	D C	Smith, A. Lettie Devorah	D C
AB 1942, University of Tulsa		Smith, Edward Shelton	D C
Smith, William Lloyd	W Va	Smith, Harriette	Va.
Smith, L. L. Leach		Smith, Herbert Irving	D C
Smith, Bruce Leonard	D C	Smith, Izzy Lane	Md.
Smith, William Lawrence	D C	Smith, Leonard	N Y
Smith, J. Martin Rachel	OK	Smith, Nettie Sandra	D C
Smith, Raymond Stratford	D C	Smith, Paul	D C
Smith, John, Charles, Jr.	Md.	Smith, Shirley Rebecca	Md.
BS 1940, State University of Iowa	Ill.	Smith, Susan	D C
Smith, Milton C. Curtis		Smith, Susan	D C
AB 1942, The George Washington University	D C	Smith, Susan	D C
Smith, James Mitchell	Mass.	B.A. 1932, College of the City of New York	
Smith, Martin J.	Mass.	AM 1941, American University	
BS 1932, Boston University		Smith, Dorothy E. Eden	Mich.
Smith, Lillian Kenneth	Va.	AB 1934, AM 1935, University of Michigan	
Smith, L. S. L. Moore	Va.	Smith, Joseph Francis	Pa.
Smith, L. S. Anthony	Pa.	Smith, Robert Paul	D C
Smith, Arthur M. Hix	D C	Smith, Beane Gardner	Md.
Smith, Louis Philip	D C	AB 1941, The George Washington University	
Smith, Janet M. Smith	D C	Smith, Norman Edward	D C
Smith, Robert Joseph	N Y	Smith, William Guy	N J
Smith, Susan M. V. N.	D C	BS 1941, State Hall College	
Smith, Donald Reed	D C	Smith, Henry	N Y
Smith, Lee Leonard	N J	AB 1941, The George Washington University	
Smith, Maxine Hogue	D C	Smith, Leon K. Hovey	D C
BS 1941, College of the City of New York		AB 1942, The George Washington University	
Smith, Marion Beatrice	D C	Smith, Louis F. J. Jost	Va.
Smith, Susan Florence	D C	BS 1941, M. S. 1942, College of Teachers	
Smith, William Henry, Jr.	Chgo.	BS 1941, M. S. 1942, George Peabody College for Teachers	
Smith, Charles Gerald	Md.	Smith, Anna Marie	Mass.
Smith, Helen Elizabeth	D C	Smith, Ann Norman	Va.
AB 1941, Harvard University	Mass.	Smith, Edgar Maurice Jr.	D C
Selinger, Margaret	D C	Smith, Henry	D C
AB 1941, Hunter College		Smith, LeRoy	D C
Seaman, John Joseph	W. Va.	Smith, Joseph Carlton	Chgo.
Seaman, Virginia	W. Va.	Smith, Leonard	Chgo.
Seaman, Susan Marie	D C	Smith, Louis H. H. Hald	Chgo.
AB 1928, Hunter College	N Y	Smith, Harold D.	D C
AM 1941, Columbia University		AB 1940, AM 1941, Radcliffe College	
Seaman, Anna Irene	D C	LL B 1941, Yale University	
Seaman, Frank H.	N J	Shaw, Joseph Ritter	Iowa
BS 1942, Marjorie College and Theological Seminary		Shaw, Joseph B.	D C
Seaman, Gertrude A. Vail	D C	Shaw, William Hart	D C
AB 1941, University of Chile	Chgo.	Shaw, William Thomas	D C
Seaman, Robert Allen		Shaw, Betty Jane	D C
Seaman, Martin William	W. Va.	Shaw, Rex D.	D C
Seaman, Leonard William	D C	Shaw, Jeanne Ruth	N Y
Seaman, William Noel	D C	Shaw, Robert Allen	Va.
Seaman, Myrtle B.	Calif.	Shaw, Betty Catherine	D C
Seaman, Frank Mettman	Ill.	Shaw, Lee Cook	Tex.
Seaman, Helen Jean	D C	Shaw, Agnes Mae	W Va.
Seaman, Doris Mae	D C	Shaw, Dorothy Germane	Va.
Seaman, Seymour Aaron	D C	Shaw, Frank	Md.
Seaman, Edith Helen	N Y	BS 1941, University of Maryland	
Seaman, Helen J.	N Y	Shaw, Thomas William	Md.
AB 1941, Brooklyn College		Shaw, Helen Margaret	D C
Seaworth, Frank Emmanuel		AB 1926, American University	
Seaworth, Helen Janet	D C	Shepard, Mary Margaret	Kans.
Seaworth, Joseph Ernest	Md.	Shepard, Sue Louise	D C
Seaworth, Kathleen Eva	Va.	Shepard, Charles Perry	Ind.
BS 1941, University of Maryland	Md.	AB 1937, The George Washington University	
Shawley, Thomas Joseph, Jr.	Pa.	Shepherd, John Henry	Md.





## 419

Simons, William Donald	Va	Smith, Alexander Walter	Ma
Simon, Bessie	DC	Smith, William Edgar	Ill
Simon, AB 1922, University of Denver		Smith, James Edgar	Ill
Simon, Irma Joseph L.	DC	Smith, Stanley Joseph	Calif
Simon, Kenneth P.	DC	Smith, AB 1921, University of California	
Simon, Marvin Paul	N.I.	Smith, James I.	DC
Simon, Jennie Harvey	Ill	Smith, AB 1928, University of Idaho	
Simon, Barbara Anne		Smith, William Paul	DC
Simon, Virginia Anne	MI	Smith, A. V.	NY
Simon, William M. 1915	DC	Smith, AB 1921, University of Alabama	
Simon, Edgar Gilbert	DC	Smith, Alvin M.	DC
Simon, Lily May	MI	Smith, Anne Josephine	S
Simon, Mary Audrey	Ill	Smith, Anne Louise	MI
Simon, Robert Justin	DC	Smith, Anne Rose	NY
Simon, William Francis	MI	Smith, AB 1921, Smith College	
Simon, B.S. 1926, Catholic University of America	DC	Smith, Anne	Ill
Simon, A.M. 1912, The George Washington University		Smith, Anne Ivy	DC
Simon, Frances		Smith, Barbara Ann	Mass
Simon, Josephine Marie	DC	Smith, Betty Katherine	S.D.
Simon, Ruth Ann	Ill	Smith, Betty Ruth	DC
Simon, Nancy Ann	Va	Smith, Brookline, Jr.	Tex
Simon, Marjorie	DC	Smith, Burton George	DC
Simon, Ruby Irene	DC	Smith, C. Reed	DC
Simon, Mildred Harriet	DC	Smith, C. Russell	DC
Simon, Ann	DC	Smith, C. F. 1927	Calif
Simons, Andrew	DC	Smith, Catherine Annelle	Va
Simons, Andrew Marion	NY	Smith, L.S. 1912, Mary Washington College	
Simons, Ruth Joyce	Calif	Smith, Charles Frederick, Jr.	DC
Simons, David H.	DC	Smith, James Emmett	DC
Simons, B.S. 1928, College of the City of New York	NY	Smith, John M.	Iowa
Simons, Arthur Aaron		Smith, Dorothy Mae	Kans
Simons, Dorothy Sylvia	DC	Smith, Elizabeth Anthony	DC
Simons, AB 1921, The George Washington University	DC	Smith, Edwin Stinson	Utah
Simons, Maurice A.		Smith, Lee W.	R.I.
Simons, Mary Madeline	DC	Smith, Evelyn Dora	Calif
Simons, Arthur Edward	DC	Smith, AB 1921, University of Georgia	
Simons, Marie Elizabeth	DC	Smith, Evelyn Maxine	Iowa
Simons, Willy	MI	Smith, Fred Emerson, Jr.	Ala
Simons, Bruce	DC	Smith, AB 1922, University of Alabama	
Simons, AB 1922, The George Washington University	DC	Smith, George Eugene	Kans
Simons, Jane Joy		Smith, AB 1922, The George Washington University	
Simons, Emmett Warren, Jr.	Ill	Smith, George Benson	Va
Simons, Jean Katherine	DC	Smith, Gordon M. 1915	DC
Simons, Margaret Lorraine	DC	Smith, AB 1921, The George Washington University	
Simons, Robert Lee	Va	Smith, Harold Leemo	DC
Simons, William Morris	Ill	Smith, Hazel Margaret	Va
Simons, John Roberson	Ill	Smith, Herbert Captain	Pa
Simons, Elizabeth	NY	Smith, Homer Wiley	DC
Simons, Helen	Ill	Smith, J. Reed	Utah
Simons, Joseph	W.S.	Smith, Jack W.	MI
Simons, B.S. 1929, MS 1914, Kansas State Teachers College (Pittsburg, Kans.)	Kans	Smith, James Arthur	Mass
Slaff, Marcel Leander		Smith, B.S. 1921, Massachusetts Institute of Technology	
Slaff, AB 1922, Cornell University	N.I.	Smith, John Francis	Va
Slaff, Robert Ballard, Jr.	DC	Smith, AB 1921, Mary Baldwin College	
Slaff, AB 1923, University of California	Calif	Smith, A.M. 1912, University of Wisconsin	
Slaff, Gerard Bertrand	Ill	Smith, John Joseph	DC
Slaff, Gertrude Marie	Ill	Smith, John Henry	Nebr
Slaff, Philip Louis	Iowa	Smith, Josephine Louise	NY
Slaff, James Henry	NY	Smith, AB 1921, University of Buffalo	
Slaff, B.S. 1914, Georgia School of Technology	Ga	Smith, Joseph Paul	DC
Slaff, Gerald Marie	Ill	Smith, John Lake	Calif
Slaff, Oswald Michael	Ill	Smith, John Elmer	Va
Slaff, Eugene Catherine	W.S.	Smith, Laura Mae	DC
Slaff, August Joseph	SD	Smith, Mel Anna	NY
Conn		Smith, AB 1922, Columbia University	
		Smith, Margaret Deppen	Va
		Smith, Mervyn Lee	Ill
		Smith, Martin Dale	Miss
		Smith, AB 1921, Mississippi College	
		Smith, Mary Cecilia	DC
		Smith, Mary Edith	MI

Smith, Mary Lou	N.C.	Somerville, Helen	N.Y.
Smith, Mary McLoire	Va.	Sommer, Edmund Totten, Jr.	N.Y.
Smith, Mercedes Alexander	Va.	Sommer, Seymour A.	N.Y.
Smith, Mervin	Pa.	S.S. 1917, New York University	N.Y.
Smith, Milton Albert	D.C.	Sonder, Dorothy Elisabeth	N.Y.
Smith, Mount Mildred	W.Va.	Sonn, I. New York	N.Y.
A.B. 1929, West Virginia University		Somner, Mary Anthony	N.Y.
Smith, Myrtle Arnes	D.C.	Sosne, Arnold M.	
Smith, Nina Oberlene	N.H.	B.S. 1918, Brooklyn College	
Smith, Olive Dalton	Ala.	A.M. 1921, The George Washington University	
Smith, Oren Jackson	Mich.	Soper, Gustav	
Smith, Patrick Jr.	Md.	Sorin, John Nicholas	
Smith, Patricia Lorraine	Calif.	Sorin, A. Bernard	
A.B. 1942, University of California		Sornson, Robert Oscar	
Smith, Pauline Elsie	Ohio	Sorrell, Iva Hays	
Smith, Randa Frances	Conn.	Sorrows, Howard Earle	
Smith, Robert Man	Md.	A.B. 1940, Baylor University	
Smith, Robert Maurice	Ohio	Sortor, Olive	
B.S. 1941, Bowling Green State University		Sosner, Violet Genevieve	
Smith, Robert Shaw	Idaho	Sosner, Doris Daisy	
B.S. 1937, University of Idaho		Souder, Helen Washfield	
Smith, Robert Tacey III	Md.	Soutar, Douglas Herbert	
Smith, Roger Gordon	D.C.	Ph B. 1940, University of Wisconsin	
Smith, Ruby Monette	Canada	Soutar, Lane	
A.B. 1947, University of Saskatchewan (Canada)		Soutar, Jack Lee	
Smith, Samuel Larry	D.C.	Soutar, Samuel Jr.	
Smith, Virginia Clara	N.C.	Soutar, Victor Fuller	
A.B. 1937, East Carolina Teachers College (N.C.)		Soutar, Carter Henry Jr.	
Smith, Virginia Slayton	Md.	A.B. 1941, University of New Hampshire	
Smith, Wila Coum, Jr.	Va.	Soutar, Florence Clelen	
Smith, Wila Verniece	N.C.	Soutar, Paul	
Snider, Helen	Md.	Soutar, Lillian Marie	
Snider, Steve Lee	Md.	Soutar, George Robert	
Snider, Eugene Mary	Va.	Soutar, Lillian Carter	
Snider, Charles Edwin	Pa.	Soutar, John Ann	
Snider, John Graham	D.C.	Soutar, Ray Spence	
Snider, Kenneth Bruce	D.C.	Soutar, James Abram	
Snider, Elizabeth Anthony	Va.	Spangler, Lee Warren	
Snider, Jack C.	Tex.	Spaulding, Lee	
Snider, Muriel Mary	D.C.	Spaulding, Louis Ben. Jr.	
Snider, Margaret Payne	D.C.	E.S. 1941, M.I. 1942, Rice Institute	
Snider, Margaret Tr. Emerson	D.C.	Spaulding, Louis Morris	
A.B. 1947, Iowa Wesleyan College		Spaulding, Phyllis Jean	
Snider, Robert Morgan	Md.	Spaulding, Raymond Lester	
B.S. 1940, The George Washington University		B.S. 1941, Albion College	
Snider, Sylvia Lila	Va.	Spaulding, Carl Carter	
Snider, Dorothy Louise	W.Va.	Spaulding, Richard B.	
Snider, Gene Ann	N.Y.	Spaulding, Louise Imogene	
Snider, Ira Warren Jr.	Pa.	Spaulding, Mary Louise Sue	
Snider, John Daniel	Pa.	Spaulding, Michael Ann	
Snider, Muriel Frances	D.C.	Spaulding, Helen Regina	
Snider, Mary Jane	Md.	Spaulding, Roy	
Snider, Paul I.	Kans.	Spaulding, Louis Howard	
Snider, Rowena		Spaulding, Louis Edward	
A.B. 1938, Western College (Mo.)		A.B. 1942, Boston College	
A.M. 1943, University of Kansas		Spaulding, Mary Jane	
Soble, Abraham Bennett	Pa.	Spaulding, Albert Francis	
A.B. 1948, University of Pennsylvania		Spaulding, Joseph Guarrant	
Sokal, Leonard	D.C.	Spaulding, Gilbert	
Sokal, Alfred D.	N.Y.	Spaulding, George Olin	
Sokal, Nancy Thelmer	D.C.	Spaulding, Helen Mather	
Solomon, Bernard	N.Y.	A.B. 1942, The George Washington University	
Solomon, Upp Jerome	N.Y.	Spaulding, John W. H.	
A.B. 1940, College of the City of New York		Spaulding, Irving Abraham	
Solomon, Edgar	D.C.	Spaulding, Albert	
Solomon, Max	D.C.	Spaulding, Howard Lehman	
Soft, Samuel James	Ohio	B.S. 1942, Gettysburg College	
Somers, Elizabeth Rose	D.C.	A.M. 1944, University of Michigan	
		Spaulding, Harold Wale	
		B.S. 1942, Mount Union College	
		Spaulding, Derek Potter	



## 421

Spiker, Janet Nevins				
Spiker, Naomi Wehrheim	D.C.	Stetson, Lillian V.		Mass
Spiller, L. J. Nora	MI	Stetson, Ruth Relebach		NY
AB BBA 1944, University of Texas	Tex	AB 1941, Central College		
Spilbury, Calvin C.		Stetson, Ronald Gray		DC
Spindel, Sidney Simon	Unk	Stetson, Helen Woodred		DC
Spindler, Pearl Goldstein	DC	Stetson, James R. Ryan		Ark
AB 1947, Hunter College	NY	Stetson, Charles Carter		DC
Spitz, Arthur Herman		Stetson, Eleanor Blair		DC
BS 1941, University of South Carolina	SC	Stetson, Kathleen		Ga
Spitz, Hiel		Stetson, Sally Lee		DC
Spitznas, James Ernest	Conn	AB 1941, The George Washington University		
Ph.B. 1915, A.M. 1922, Dickinson College	MI			
AM 1928, Columbia University		Steele, William Beverly		DC
Spokas, Ott E.		Steele, Betty Lee		Kans
Spolsky, Anita		Steele, Dorothy Mabel		NY
Spota, Paul Ellsworth	DC	Steele, Tonya Irene		DC
BS 1942, University of Pittsburgh	NY	Steele, Ann K.		DC
Sprecker, Don Elwyn	Pa	Steele, Dexter Benjamin		NI
Sproule, Charlotte Elizabeth		Steele, Elma Louise		DC
Sproun, G. Warren	Ohio	Steele, Harold Lawson		NY
Sproun, Virginia Story	MI	Steele, Jack Edward		DC
Sprouate, William Franklin	MI	Steele, Joseph		DC
Sprouley, Alan Benjamin	D.C.	Steele, Ralph		DC
BS 1942, Yale University	Ill	Steele, Stanley P.		NY
Spurre, Marion Bernice		AB 1937, Hunter College		
Spurges, Lucille Gene Grace	DC	A.M. 1928, Columbia University		
Spurlock, Stanley Edward	MI	Steele, William Lee		NY
Spurlock, Edwin Walter	MI	Steele, Louis Sylvia		DC
B.Mus. 1949, Baldwin Wallace College	Conn	Steele, Virginia I.		DC
Spurlock, Miriam Lois		Steele, Dorothy		NY
Spurly, Delmar Ardene	MI	AB 1942, Hunter College		
Spurrier, Richard Alan	Ill	Steele, Esther		DC
Spurrier, Alan E.	Conn	Steele, Jack Norman		DC
AB 1925, Coe College	Conn	Steele, Albert Robert		DC
Staff, John Coulter	La	Steele, James LeRoy		La
Staff, Seymour		AB 1942, Simpson College		
Stafford, Thomas A.	Texas	Steele, Frederick Burton		DC
Stadler, Anna May	DC	Steele, Margaret Louise		DC
Stadler, Annmar	DC	Steele, Vernon J.		MI
Stadler, Hays Mae	DC	Stadler, Pernice		NY
Stadler, Paul William	MI	Stadler, John Putnam		DC
Stadler, James S.	MI	Stadler, Seymour H.		NY
Stadler, Laura May	Ill	Stadler, William Martin		DC
AB 1922, Colby College	VI	Stadler, Walter H.		Ill
Stadley, Robert Goddard	Moore	AB 1926, University of Illinois		
AB 1914, University of Pennsylvania	Pa	Stadler, Susan		
Stadler, Speed William		Stadler, Harriet F. H.		Pa
Stadler, L. L. Margee	DC	Stadler, Gladys Marie		Kans
Stadler, Carl Elton	MI	Stadler, Kathleen Stanford		DC
AB 1949, Illinois College	DC	Stadler, Carolyn Elizabeth		DC
Stadler, Martha I.	Ill	Stadler, Cecelia Anne		DC
BS in Com. 1941, Northwestern University	Va	Stadler, Lois M. Ford		Ill
		Stadler, Lloyd William George, Jr.		Kans
Stadler, Mary Catherine	DC	Stadler, Milton Frederick		DC
	DC	Stadler, Paul Thomas		Va
Stadler, Richard Hadlin		Stadler, Harold Cath. Jr.		NY
AB 1948, University of Kansas	Kans	Stadler, James Theodore		NI
Stadler, Mildred Alma		Stadler, Margaret Anne		DC
Stadler, Lois Marie	DC	Stadler, Anne Susan		DC
Stadler, Robert Arthur	La	Stadler, William		NY
BS 1942, Yale University	MI	Stadler, William Abbe		NY
Stadler, John Lawrence	MI	Stadler, Yvonne		NY
Stadler, Jane Catherine		Stadler, Kathleen Elizabeth		DC
Stadler, Esther	W.Va	AB 1943, University of California		
Stadler, Lisa	DC	Stadler, Richard		MI
Stadler, William James	Mass	Stadler, Helen Therese		DC
AB 1914, University of Chicago	Va	Stadler, Joan Elizabeth		DC
	MI	Stadler, Leslie Linda		DC
		Stevens, Rodney David		Cal
		AB 1942, University of Colorado		
		Stevens, Ralph B.		DC
		Stevens, Bruce Alex		SC
		Stevens, Helen Elizabeth		Mich
		BS 1942, Northwestern University		



Stevens, Viola M. L.	Tex.	Stamm, Vivian H.	N.Y.
Stewart, Anita	N.C.	Stanner, Beat	Ind.
A.B. 1938, Queens-Chlora College		Starr, John William, Jr.	Ind.
Stewart, Betty Jane	D.C.	Starnes, Martha Ethel	Ind.
Stewart, Dorothy Frances	Va.	Stark, E. Birmingham	Tenn.
Stewart, Jeffrey Robert	Va.	Starr, Phyllis Glenn	Ark.
Stewart, Laura Catherine	D.C.	Starr, Light Keith	Ind.
Stewart, Margaret	Ky.	Starrington, Merwin Rose	Ind.
A.B. 1939, University of Kentucky		Starr, Betty Jane	
Stewart, Myrion G.	Va.	A.B. 1942, Radcliffe College	D.C.
A.B. 1940, University of Oregon		Starr, M. Fred P.	D.C.
Stewart, Nancy E.	Tex.	Starr, Wallace Henry	Ind.
A.B. 1942, University of Texas		Stewart, Emily Jefferson, Jr.	
Stewart, Paul Revere	N.J.	B.S. 1941, Howard College	Ind.
A.B. 1944, University of Washington		Stewart, Velma	
Stewart, Sula Lee Francis	Va.	Stevens, Mary H. Brown	Mo.
Stewart, Susan Spencer	Mass.	A.B. 1942, Wellesley College	Mo.
Stewart, Marjorie Gertrude	N.I.	Steadley, Margaret Josephine	Ind.
Stieber, Paul Gerhard	Va.	Stearns, Diana	N.Y.
Stieber, Thomas James	Ind.	Stearns, Lawrence	Ind.
Stieber, Lucie Estelle	Va.	Stevens, Samuel	
Stier, Anna Devere	Ind.	Ph.D. 1947, A.M. 1941, University of Chicago	Ind.
Stier, William Warren, Jr.	Mass.	Streater, Virginia Lee	Ind.
A.B. 1941, Andover College		Stettin, Grace Pearson	N.Y.
Stiller, Bertram	N.Y.	Stevens, Ronald Emerson	N.Y.
Stinson, L.L.	Mass.	Stetz, Peter Anthony	N.Y.
Stinson, Elroy Theodorson	Ohio	Stetson, Thelma Washington, Jr.	D.C.
A.B. 1941, Constantinople Woman's College		Stetson, Alice L.	
A.M. 1936, Columbia University		A.B. 1942, University of Maryland	D.C.
Stinson, Laura Hill	Ind.	Stetson, Harold Albert	Ind.
Stine, Michael C.	Ind.	Stetson, William Thomas, Jr.	
Stirling, Howard Ellsworth		B.S. 1940, Case School of Applied Science	D.C.
A.B. 1942, The George Washington University		Stratton, Frank Hunter	
Strawald, Margaret Amelia	Va.	A.B. 1941, The George Washington University	
A.B. 1941, Randolph-Macon Woman's College		Stratton, John Alfred	Ind.
A.M. 1945, Columbia University		Stratton, Frank Anthony	N.Y.
Ph.D. 1948, University of Virginia		B.S. 1948, University of Pennsylvania	N.Y.
Strawald, Margaret	D.C.	Stratton, Mary Ann	Ind.
Strawald, Robert E.	Wash.	Stratton, Helen Charles	Ind.
Strawald, John A.	Pa.	Stratton, Calvin Arnold	N.C.
A.B. 1946, Ohio State University		Stratton, Matthew Alfred	
Strawald, Bernard Winfield	Mass.	A.B. 1940, University of North Carolina	Mo.
Strawald, Charles I.	N.Y.	Stratton, Warren Greenleaf	
Strawald, Charles Earl	Mass.	A.B. 1944, University of Maine	Ind.
A.B. 1947, LL.B. 1946, Harvard University		Stratton, Norbert George	
Strawald, James Charles	Mass.	Stratton, Alexander Herman	
Strawald, Paul Chase	D.C.	A.B. 1941, M.S. 1942, University of Missouri	Ind.
Strawald, Arthur Joseph	Ohio	Stratton, Charles Cris, Jr.	Ind.
B.S. 1941, Kent State University		Stratton, Charles Robert	
Strawald, Donald Andrew	S.C.	Stratton, Donald Goodman	Va.
Strawald, Doris Glenn	Ky.	A.B. 1941, Dartmouth College	Mo.
Strawald, R. Colville	D.C.	Stratton, Melvin Taylor	S.C.
Strawald, Mildred Melvina	Tex.	Stratton, Mary Ellen	Mo.
Strawald, Michael Ruth	D.C.	Stratton, Mary Louise	Va.
Stratton, Raymond	D.C.	Stratton, Norman Frederick	N.Y.
Stratton, Eleanor Jane	Ind.	Stratton, Ted Sherman	D.C.
Stratton, Daniel Joseph	N.Y.	Stratton, George	
A.B. 1947, Johns Hopkins University		Stratton, Elizabeth Bernhardt	
Stratton, Helen	Mass.	A.B. 1941, The George Washington University	N.Y.
A.B. 1940, Radcliffe College		Stratton, Mervin	
Stratton, Homer Edward	Iowa	B.S. 1941, New Jersey State Teachers College, Upper Montclair, N.J.	Va.
B.S. 1942, Iowa State College of Agriculture and Mechanic Arts		Stratton, Robert E.	Ind.
Stratton, Lewis Allison	D.C.	Sullivan, Dorothy Patricia	Mo.
A.B. 1941, Bowdoin College		Sullivan, Arthur Victor, Jr.	Ind.
Stratton, Luther Edward	Ind.	Sullivan, Carl Emory, Jr.	D.C.
Stratton, Thomas Edward	D.C.	B.S. 1942, Harvard University	
A.B. 1943, The George Washington University		Sullivan, Charles Andrew	

## 423

[illegible]

Taylor, Irma Viola	Miss	Thomas, James Louis	Ala
Taylor, Inez Shirley	D.C.	Thomas, James Louis	Pa
AB 1942, University of Tulsa	Conn	Thomas, Leona Marie	T.
Taylor, Jules S.	Mid	Thomas, Richard Lindrum	Wash
Taylor, Lawrence Martin	Pa	Thomas, Margaret Isabel	Pa
Taylor, Marion	Va	Thomas, Harold Bonnie	Pa
Taylor, Marion Eugene	Va	Thomas, L. W. Walter	Pa
B.S. 1937, Washington College (Md.)	Va	Thompson, Betty Roter	N.Y.
Taylor, Marguerite G.	Va	Thompson, Betty A.	Pa
Taylor, Mary Ruter	D.C.	Thompson, Edward Mitchell	Pa
Taylor, Mason Edwin, Jr.	D.C.	Thompson, Edwin Sisco	Pa
Taylor, Paul Milton	Conn	Thompson, Ernesto Solorzano	D.C.
Taylor, Sterling Price, Jr.	N.Y.	Thompson, Evelyn Grace	Va
Taylor, Sylvia	D.C.	Thompson, Eugene Augustus	Ohio
AB 1941, Hunter College	D.C.	Thompson, Fletcher Dew	Pa
Thompson, Margaret Cornelia	D.C.	Thompson, Frances McCoppin	W.Va
Tebeau, John P.	Mass	Thompson, H. Virginia	Pa
Tedesco, Edward Fortunato	W.Va	Thompson, Harry Francis	Pa
Teel, William Eugene	Calif.	Thompson, J. Lamberty	N.Y.
Teisseire, Myrtle Marion	Pa	Thompson, Leigh Kyle	Pa
Telock, Stephen William	D.C.	Thompson, Kathryn Elaine	Wash
Temple, Adelle	D.C.	Thompson, Mary Smet	N.Y.
Temple, Harry Downing	D.C.	Thompson, Nellie Ellen	Va
B.S. 1944, Virginia Polytechnic Institute	D.C.	Thompson, Nellie Zera	Pa
Temple, William Woods	D.C.	Thompson, Philip Adams	Pa
Tetley, Theodore Thaddeus	N.Y.	Thompson, Ralph Franklin	Pa
Tennant, Edward Francis	D.C.	Thompson, Robert Louis	N.Y.
Tennison, Nancy Lee	Del	Thompson, Sarah Anne	Pa
Tennis, Fred	Tex	Thompson, Sarah Spelman	N.Y.
Tennis, Low	Tex	Thompson, Sidney Orville	Pa
Terrill, Henry Grady, Jr.	Tex	Thompson, Wayne N.	Pa
B.S. 1942, North Texas State Teachers College	Okla	B.L. 1946, Western Illinois State Teachers College	W.Va
Terry, George McGrew	N.Y.	A.M. 1947, Northwestern University	Ala
L.L.B. 1942, The George Washington University	N.Y.	Thompson, William A.	Pa
Terry, John Haslet	N.Y.	B.S. 1942, Marshall College	Pa
B.S. 1937, M.S. 1938, Rensselaer Polytechnic Institute	N.Y.	Thompson, William Davis	Pa
Tew, Roger, Jean-Marguerite	Va	B.S. 1930, Alabama Polytechnic Institute	Pa
Tech, Gardner Lewis	Va	Thompson, William Wayne	Pa
AB 1941, Catholic University of America	Miss	Thompson, Elizabeth A. Ayala	Pa
Tesler, James	Pa	AB 1935, Sacramento College	Pa
Tewell, Charles Richard	Pa	Thompson, Jack Edward	Pa
Thackberry, Gloria Ruth	Va	Thompson, Margaret Alice	Pa
Thack, Anne Marie	D.C.	Thompson, Richard	Pa
Thames, Martha Ann	Pa	Thompson, David J.	Pa
Thaw, Alexander Blair	Pa	Thompson, Jack Bernard	D.C.
Thayer, Ugo Joseph	Pa	AB 1932, University of Washington	Pa
Thayer, Herbert C. S.	Pa	Thompson, Ralph Hampton, Jr.	Pa
B.S. in M.F. 1947, The George Washington University	Pa	Thorne, I. Arthur	Pa
Thayer, Rosemary	Pa	B.S. 1929, Santa Teachers College	Pa
Thayer, Arthur Demick	Pa	(M.L.A. 1930, West)	Pa
B.S. A.B.E. 1927, University of Colorado	Pa	Thorne, L. H. Kent	Pa
Thayer, Anne Marie, Jr.	Pa	Thorne, Vera Hampton	Pa
Thayer, Robert	Pa	Thorne, Arnold	Pa
B.S. 1928, Washington and Lee University	Pa	Thorne, George	Pa
L.L.B. 1940, University of Maryland	Pa	B.S. in Pa. 1929, The George Washington University	Pa
Thomas, Clara Ann	Pa	Thorne, Mary	Pa
Thomas, Ena E.	Pa	AB 1927, The George Washington University	Pa
Thomas, Enid Pearce	Pa	Thorne, Albert, Jr.	Pa
Thomas, Evan Snowden	Pa	Thorne, Louis B.	Pa
Thomas, Frank Vesta	Pa	Thorne, R. Douglas	Pa
Thomas, George Stanley	Pa	Thorne, L. S. Ayler	Pa
Thomas, Harriet S.	Pa	Thorne, Philip Franklin	Pa
Thomas, Hazel Larene	Pa	AB 1942, Western College	Pa
Thomas, Herrick Melvin	Pa	Thorne, Paul Henry	Pa
AB 1940, The George Washington University	Pa	Thorne, Thomas Patricia	Pa
		Thorne, Violet L.	Pa
		Thorne, L. Joseph, Lach	Pa
		Tingle, A. Preston	Pa



[illegible]



V			
Vadades, Venetia Vasser	Mass	Vermillion, Thomas Watson	D.C.
Vadimon, Alberta Esselle	D.C.	Vernon, Glenn Morley	D.C.
Vader, Virginia Rita	Mass	Vernon, Robert Edwin	D.C.
A.B. 1941, Emmanuel College		Verret, Mildred Cecilia	Ta
Vade, Helen Lee Robinson	Brazil	Via, Raymond Bernard	Va
Vae, Mary Louise	N.Y.	Viccellio, Asa William	Va
A.B. 1941, Mary Baldwin College		Viccellio, Mary Parish	Va
Vas, Beverly Lee, Matrona	Panama	Viccellio, Nancy Blain	
Vasce, Harold T., Jr.	Ala.	A.B. 1944, Meredith College	
Vasce, Nelson Carr	D.C.	A.M. 1949, University of Virginia	
Vasce, Paul Ernest	Va	Vieary, Howard Morton	N.Y.
Vas Derbeck, Elizabeth Towrley	N.I.	Vieles, John E.	Pa
A.B. 1942, Upson College		Vieles, George	Pa
Vanderlip, Robert Crawford	D.C.	Vieles, Henrik Willem	Pa
A.B. 1929, University of Michigan		Vieles, Jeanne F.	Me
A.M. 1941, Columbia University		Vieles, Paul Douglas	Me
Vas, Dorcas Barbara Cathich	D.C.	Vieles, Peter Paul	D.C.
Vasile, Hani, Doris Arthur	Mich	Vieles, Maria F.	
A.B. 1941, Hope College		P.P.G. 1943, Columbia University	D.C.
Vas Hani, Elizabeth Ann	Md	Vigess, Helen Anne	D.C.
A.B. 1941, Wellesley College		Vigess, Oscar Milton	D.C.
Vas Hani, Elizabeth Kente	D.C.	Vigess, Anna	D.C.
A.B. 1945, Hunter College		Vigess, Carolyn	W.Va
Vas Horn, Jean	Iowa	Vigess, Anna	W.Va
Vanigilio, Venicio Lawrence	D.C.	Vigess, Opal Pearl	Me
Van Keuren, Virginia Anne	Oh.	Vigess, Margaret L.	Pa
Van Leeuwen, Gerard William	N.Y.	Vigess, Gilberta Nunes	Pa
Vannice, William Wilson	D.C.	Vigess, Marion Rosamond	Pa
Van Ormer, Elizabeth	Pa	Vigess, Monna Jeanne	Pa
A.B. 1941, The George Washington University		Vigess, Mary Josephine	Pa
Van Pelt, Warren Wright	Va	Vigess, Joseph	Pa
Van Sanford, Gordon M.	N.M.	Vigess, Sallie Perrie	Pa
Vanstorp, James Cornelius	D.C.	A.B. 1941, University of Maryland	Pa
Vardaman, Mildred Alice	Ala	Vigess, Alma Roscoe	Pa
Vargas, Lester Lambert	R.I.	Vigess, Ida Polline	Pa
Varko, Frank George	N.Y.	Vigess, Maria Edward	Pa
Varner, David Edwards	D.C.	Vigess, Leola Arthur	Pa
B.S. 1946, Massachusetts Institute of Technology		Vigess, Mary Louise	Pa
Vasa, Valdimir	D.C.	Vigess, Helen Lily	Pa
A.B. 1941, The George Washington University		Vigess, Barbara Marie	Pa
Vasey, John James	Ill	Vigess, Hazel Alfred	Pa
Vass, George Oakley	D.C.	A.B. 1942, St. Mary's College (Calif.)	N.Y.
Vass, Richard Branson	Md	Vigess, Joseph F.	Pa
Vaughan, Elizabeth Lowry	D.C.	Vigess, Richard Louis	Pa
Vaughan, Mary Lowry	D.C.	B.S. 1949, University of Wisconsin	Pa
Vaughan, William Warder	Ky	Vigess, Emil S.	Pa
Vaughn, Norma Gertrude	D.C.	Vigess, Mary	Pa
Vaupel, George Ealy	W.Va	Vigess, Nathan	Pa
B.S. 1941, Bethany College (W.Va.)		B.S. 1945, Georgetown University	Me
B.S. 1941, West Virginia University		Vigess, Ernest M.	Pa
Vavra, Helen Mary	Minn	Vigess, Lawrence Beale	Pa
Vawter, Frances	Mass	Vigess, Mary Edith	Pa
Vawter, Sally Jean	Ill	Vigess, Charles Henry	Pa
Vavra, Halsey Hugh	Calif	Vigess, Andrew	Pa
A.B. 1940, University of California at Los Angeles		Vigess, Robert Lee	Pa
Velarde, Emma	Cal	Vigess, Norman, Klara	Pa
Velikov, Zora	Mich	Vigess, Susan Jean	Pa
Velkoff, Cyril L.	Ind	Vigess, Walter Jr.	Pa
A.B. 1942, The George Washington University		Vigess, Robert Howard	Pa
Vence, Betty Jane	Okla	Vigess, Joseph Bernard	Pa
Venezky, Alice Sylvia	D.C.	Vigess, Harold Jr.	Pa
Venezky, David Lester	D.C.	A.B. 1946, Cornell University	Pa
Venneberg, Verna L.	Wash	Vigess, Francis Joseph	Pa
Veon, Dorothy Helene	Nebr	Vigess, Mary Wharton	Pa
B.S. 1945, University of Nebraska		Vigess, Ruth Louise	Pa
A.M. 1940, The George Washington University		Vigess, Katharine Evans	Pa
		Vigess, Patricia Gilbert	Pa
		Vigess, Helen	Pa
		Vietton, Louis	Pa
		Vroman, Betty Jean	Pa
			W
		Wade, Charles Joseph	D.C.
		Wachter, Elizabeth Elaine	D.C.

[illegible]

Weiss, Hazel Marie	W Va	Welch, Beulah May	Va
White, James Henry, Jr.	Va	Welch, William A. College of the	N Y
B.S. 1928, University of Virginia		University at North Carolina	La
White, Mary	D C	Welch, Elizabeth Churchill	D C
White, Richard William	Va	Welch, Mary E.	Va
White, Robert	D C	Weller, Irene	D C
White, Warren Matthew	Ill	Wells, Catherine Van Alstyne	D C
A.B. 1922, Illinois Wesleyan University		Wellman, Wayne Eugene	D C
White, Evelyn Louis	D C	Wellman, Frank	Pa
White, Helen H.	D C	Well, Dorothy Jane	D C
A.B. 1921, Transylvania College		Well, Elizabeth Dorothy	Pa
White, John Anthony	D C	Well, Neale	Ky
White, Paul	Pa	Well, Priscilla	Va
White, Paul Louis	D C	Well, Robert Henry	N Y
White, Elizabeth Rankin	D C	Well, William Leslie	Calif
White, Mary Lucile	D C	Wells, James Parker	Pa
White, William Buckley	D C	Wells, Mary Kathleen	Pa
White, Harold Milton	D C	Wells, Dorothy Cecilia	D C
White, Norman	D C	Wells, Harriet Ann	Calif
A.B. 1941, The George Washington		Wells, Benjamin Raymond	Ky
University		Wenger, Berneice A.	D C
White, John Clement	Calif	Wenger, Gerald Blackburn	Pa
White, George Carl	D C	Wenger, John Edward	Pa
B.S. 1941, University of Wisconsin		A.B. 1946, Albion College	Va
White, Gertrude Elizabeth	D C	Wesley, Stephen	W Va
White, Henry Conway	Mo	Wesley, Charles Lynett	Va
White, Gladys Evelyn	D C	West, Robert	Pa
Whitney, Anne Louise	Calif	West, Carolyn Beattie	Pa
Whitney, David	D C	West, Philip H.	N Y
Whit, Edna Florence	Va	Whitney, Seymour	D C
Whit, Wen Yuen	Calif	Whitney, Viola Cecilia	N Y
A.B. 1941, Yenching University		Whitney, Leonard Seymour	N Y
A.M. 1942, Mount Holyoke College		Whitney, William David	N Y
Whitlock, William Harold	N Y	Whit, Carmel Louise	Pa
B.S. 1941, New York University		Whit, Noel Clayton	Mo
Whit, Richard Shaver	D C	Whit, Virginia Rose	D C
Whit, Gertrude Maurine	D C	Whit, William	D C
Whit, Ruth Maurine	Tex	Whitlock, Marion S. Carter	W Va
Whitney, Stanley	Calif	Whitworth, Dorothy Ellen	Pa
A.B. 1941, Ohio University		Whitworth, David Lee	Mo
Whitworth, Lester	N Y	Whitworth, Mary Josephine	N Y
Whit, Nora	Va	Whit, Robert Gordon	N Y
Whit, Betty Gilda	Me	Whit, Warren I.	Pa
Whitfield, Charles	D C	B.S. 1942, Syracuse University	Pa
Whitford, Philip	Me	Whitford, Victor Louis	N Y
B.S. 1942, Long Island University		Whitlock, Timothy Rose	N Y
Whitford, Emanuel	N Y	Whit, Fredrick Jackson	N Y
A.B. 1941, Brooklyn College		Whit, Arnold	Pa
M.S. 1945, College of the City of		B.C. 1941, College of the City	Me
New York		of New York	
Whitford, Mildred	D C	Wyle, Reed Anthony	D C
Whit, Nora Jane	D C	A.B. 1941, Yale University	Pa
Whitford, Paul	D C	Wynn, Robert Seavall	Pa
Whit, Anna Gardner	D C	Wynne, John Gustave	Pa
Whit, Albert	D C	Wynne, Betty Jeanne	Pa
Whit, Harold	Va	Wynne, H. Wesley	Pa
Whit, Philip	N Y	Wynne, Bruce Graham	N Y
A.B. 1941, Brooklyn College		Wynne, Gladys N.	Pa
B.S. 1941, Columbia University		Wynne, Victor R.	Pa
Wheeler, Stanley I.	N Y	Wynne, Louis Neal	Pa
Wheeler, Harry Albert	W Va	A.B. 1941, L.L.B. 1942, Vanderbilt	Pa
Wheeler, Julius	N Y	University	Pa
B.S. 1937, Yale University		A.M. 1941, Columbia University	Pa
Wheeler, Louis Jordan	D C	Wheeler, M. Joseph	Pa
Wheeler, Jack	N Y	Wheeler, William Vernon	Pa
Wheeler, Reine Fantin	Va	Wheeler, George Otto	Pa
A.B. 1942, The George Washington		Wheeler, Bruce Louis	Pa
University		Wheeler, Harold Aubrey	Pa
Whelan, Helen Hyman	D C	Whitaker, Scott Merrill	Me
A.B. 1941, The George Washington		Whelan, Ann Wesley	Pa
University		Whelan, Ann Patricia	Pa
Welban, George C.	N C	A.B. 1942, Wadsworth College	Pa
		White, Clara Belle	Pa
		White, Daniel Edward	Pa



White, Edith Mary	Va	Willard, Harriet W.	D.C.
White, Emily Matthews	Va	Willard, Lela Emery	Conn.
White, Fidd Mary	Idaho	Willard, Lee Herbert	D.C.
White, George Howard	Va	Willard, Floyd Percival	Osla
White, L.B., 1934, Princeton University		Willard, Margaret Mary	Ola
White, 1937, Harvard University		Willard, Anna M.	D.C.
White, Jacqueline Ruth	D.C.	Willard, A.M. 1931, Indiana University	
White, Joe Lee	Va	Willard, Ann Nicholson	N.J.
White, John Edward	Ind.	Willard, Claire Gwendolyn	Pa.
White, John William	D.C.	Willard, Clara Vaughan	D.C.
White, Kenneth Woodward	D.C.	Willard, Elizabeth Ann	D.C.
White, Lee Robert	Pa.	Willard, Eleanor Isabel	Conn.
White, Louise McNeely	Va	Willard, Emilie Helen	S.C.
White, Louise McNeely		Willard, Joseph Mary	N.Y.
White, 1927, Baylor University		Willard, John Robert	D.C.
White, M. Linn Leface	Mass.	Willard, Katherine L. Lytle	Va
White, Nancy Ann	Md.	Willard, Katherine Lytle	N.J.
White, Philip Taylor	Ohio	Willard, Kathleen Margaret	N.M.
White, Ralph Joseph	Md.	Willard, Lorraine Souier	N.Y.
White, Robert Bellarmine	D.C.	Willard, B.S. 1941, The George Washington University	
White, Robert Clafce	Ola	Willard, Louis H.	Va
White, Laurence Arthur	D.C.	Willard, Margaret Lee	D.C.
White, Clara Lee	D.C.	Willard, Margarita Elizabeth	N.Y.
White, Florence Isabella	Mass.	Willard, M. L.	Va
White, Richard Walter	Mass.	Willard, Muriel Irene	Mont.
White, 1942, University of Maine		Willard, Robert Franklin	D.C.
White, Reginald Banks	Pa.	Willard, Susan Lee	S.C.
White, Ker William Lewis	D.C.	Willard, Susan Sebastian	S.C.
White, 1942, University of Delaware		Willard, Wilfred Stanton	Calif.
White, Mary Jane	Md.	Willard, B.S. 1937, University of Southern California	
White, Thomas Irving	Fla.	Willard, Charles John	Mich.
White, Kathryn Handover	D.C.	Willard, B.S. 1942, The George Washington University	
White, 1942, Wittenberg College		Willard, Charles Russell	D.C.
White, Calif.	D.C.	Willard, Henry D. Ward	Md.
White, Ward A., Jr.	N.Y.	Willard, M. L. W.	Va
White, 1932, Yale University		Willard, Robert C.	Md.
White, M. A.	D.C.	Willard, Edith Thomas	D.C.
White, Paula Mae	Pa.	Willard, 1931, Washington College (Md.)	
White, Kathleen Mae	D.C.	Willard, 1931, Washington University	Ia.
White, Mary Elizabeth	Md.	Willard, Edith Thomas	D.C.
White, Harvey	Ill.	Willard, George M.	Tex.
White, 1942, Harvard J.	Pa.	Willard, Robert Edward	Ill.
White, M. Margaret	Pa.	Willard, Arthur Noel	Md.
White, Daniel Banks	W.Va.	Willard, Gustave Youson	
White, Ed. 1946, Shepherd State Teachers College		Willard, B.S. 1927, Ohio State University	
White, 1940, West Virginia University		Willard, M.S. 1934, University of North Carolina	
Wilburn, Jeannette Stehman	Va	Willard, G. Henry Ward	D.C.
Wilcox, Everett Elliot	Md.	Willard, Elizabeth Gibson	Md.
Wilcox, Robert Lynn	N.Y.	Willard, 1931, The George Washington University	
Wilcox, William C. Ker	Mass.	Willard, Anna L. Hanna	D.C.
Willard, Alvin Lee	Md.	Willard, Mary Louise	D.C.
Willard, 1931, Yale University		Willard, Frances Miller	Va
Willard, 1931, Yale		Willard, L. Anna Lucretia	D.C.
Willard, Robert April	D.C.	Willard, Andrew John	S.C.
Willard, B.S. in C.E. 1937, The George Washington University		Willard, Anna Maxima	D.C.
Willard, 1931, The George Washington University		Willard, Betty Jane	Mass.
Willard, 1931, The George Washington University		Willard, Charlotte Shearer	N.C.
Willard, 1931, The George Washington University		Willard, Edgar Hunter	Mass.
Willard, 1931, The George Washington University		Willard, Eugene Josephine	Va
Willard, 1931, The George Washington University		Willard, Florence H.	D.C.
Willard, 1931, The George Washington University		Willard, George Milton, Jr.	Md.
Willard, 1931, The George Washington University		Willard, Grace Ashburn	
Willard, 1931, The George Washington University		Willard, B.S. 1931, New York University	Ohio
Willard, 1931, The George Washington University		Willard, George Elizabeth	Md.
Willard, 1931, The George Washington University		Willard, Helen Marie	Ariz.
Willard, 1931, The George Washington University		Willard, Ivan David	



Wilson, James Elbert	D.C.	Willschlag, Horace M.	Mo
Wilson, Jessie Janetta	Tex	Walt, Dorothy Lee	I.C.
Wilson, Joseph Daniel	Md	Walt, Frances Leah	I.C.
Wilson, Katherine Louise	Mich	Walt, Herbert Oscar	N.Y.
Wilson, Kendall Wayne	Wash	Walters, Carlton H.	I.C.
Wilson, Lloyd Thompson	Pa	Walt, Elvira	Go
Wilson, Mary	Ark	Walt, Margaret Mary	N.Y.
Wilson, Margaret Estelle	D.C.	Walt, Ralph Limer	D.C.
Wilson, Nancy Clayton	Va	Walt, Sally	Ohio
Wilson, Norma Frances	D.C.	Walt, Alice Mildred	
Wilson, Ruth	Iowa	BS 1911, Ohio State University	N.Y.
Wilson, Thomas Ashton	D.C.	Walt, Leah	N.Y.
AB 1915, The George Washington University		Walt, Robert Myron	
Wilson, Thomas Moser	D.C.	BS 1911, Rensselaer Poly-	D.C.
Wilson, Vera	Pa	technic Institute	D.C.
Wilson, Vernon Claude	Ky	Walt, Lila Elvin	
Wilson, Walter Wallace	D.C.	Walt, Lester	
Wilson, William Clinton	D.C.	BS 1911, University of Pennsylvania	D.C.
Wilson, William Elbert	D.C.	Walt, Hamilton Kottelman	N.Y.
Wilson, William M.	D.C.	Walt, James	N.Y.
AB 1915, University of Wisconsin		Walt, John Julia	N.Y.
Wilson, Miss Jane Deere	Ill	Walt, Herbert L. D.	I.C.
Wilson, Milton	D.C.	Walt, Charles Albert, Jr.	I.C.
Wilson, Fred Anderson	D.C.	Walt, Carolyn Evelyn	
Wilson, Robert Louis	Go	AB 1912, American University	Md
AB 1918, Duke University		Walt, Cary L. Smith	N.Y.
Wilson, Sam	D.C.	Walt, Fredrick Franklin	Md
Wilson, Robert Kenneth	D.C.	CE 1911, Cornell University	
Walt, Raymond Joseph	Calif	Walt, Kenneth R. Hall	
BS 1919, City University of America		AB 1917, University of Kansas	Mo
Walt, Audrey Doris	D.C.	Walt, Lucy Alice	N.Y.
AB 1911, University of Wisconsin		Walt, Robert Andrew	N.Y.
Walt, John Wayne	Kans	Walt, Walter Preston	
Walt, Joseph Fred	D.C.	BS 1917, University of Alabama	Ala
Walt, Otha	Calif	MS 1917, University of Washington	
Walt, Thelma	D.C.	Walt, William Andrew, Jr.	
Walt, George Otis	D.C.	BS 1917, Tulane University	Mo
Walt, Harvey John	Va	BS 1917, University of Wisconsin	
AB 1918, AM 1940, University of Wisconsin		Walt, George Dean LeRoy	
Walt, Henry Charles	Neb	BS 1919, The George Washington University	N.Y.
AB 1911, Creighton University		Walt, James M., Jr.	N.Y.
Walt, Henry	N.Y.	Walt, Frederick Caville	I.C.
BS 1918, College of the City of New York		Walt, Virginia Ann	I.C.
AM 1911, The George Washington University		Walt, Walter Everett	Pa
Walt, Robert Cecil, Jr.	Pa	Walt, Walter Lee	Mo
AB 1911, The George Washington University		Walt, Frank Albert	Va
Walt, Clara Wilcox	Va	Walt, Carlton H.	N.Y.
AB 1911, Harvard University		Walt, Robert Mitchell	I.C.
Walt, C. J.	Va	Walt, Roy H.	Mo
M.E. 1919, Stevens Institute of Technology		Walt, Joseph Reed	Va
Walt, Emma H.	Ill	Walt, Edward Alfred	Va
Walt, Josephine Clara	Pa	Walt, Kenneth I.	N.Y.
AB 1911, Scripps Hall College		Walt, Norman Deane	N.Y.
Walt, Matthew Montgomery	D.C.	Walt, Francis Delmar	Pa
Walt, Vernon Dean	Md	Walt, Robert Duke	Go
AB 1918, AM 1919, University of Maryland		Walt, L. E. Frost	I.C.
Walt, Nathaniel	N.Y.	Walt, James R.	I.C.
Walt, Paul M.	D.C.	Walt, Robert George	I.C.
Walt, Gladys Gloria	D.C.	Walt, Donald Eugene	I.C.
Walt, Hilda	Ill	Walt, James Lafayette	N.Y.
Walt, Hazel C.	Md	AB 1911, Stanford University	N.Y.
Walt, Clarence Arnold	Okla	Walt, Charles I. Ray	I.C.
Walt, Marion Johnston	D.C.	Walt, Harry Kay	I.C.
Walt, William Graves	D.C.	Walt, George Graham	I.C.
Walt, Edward William	D.C.	Walt, John Eugene	I.C.
Walt, James Joseph	N.Y.	Walt, M. L.	I.C.
		Walt, R. K.	I.C.
		Walt, A. L.	I.C.
		Walt, Eugene Elmer Brown	I.C.
		Walt, David Morris	I.C.
		Walt, Paul	I.C.
		Walt, James S.	I.C.
		BS 1921, University of Virginia	N.Y.

# Students Registered

431

Way, Mary Frances	Okla	Young, Edward Eugene	Va
Wayne, Alice Jane	Fla	Young, Eva Marie	D.C.
Wayne, Frances Symonds	D.C.	Young, Leonora Asker	D.C.
Wayne, Frances Kay	La	B.S. in E.E. 1948, University of	
Wayne, George Westcott	Va	New York	
Wayne, Harry Warren	D.C.	Young, Louise Catherine	Md
Wayne, Helen DeWitt	Va	Young, Paul Albert	Iowa
Wayne, Margaret Elizabeth	E.C.	Young, Perry Marie	Ky
Wayne, Mary Clo	D.C.	Young, Richard George	Ohio
Wayne, Robert Anson	Pa	Young, William M.	D.C.
Wayne, Roy Lee	D.C.	B.S. 1947, Ohio State University	
Wayne, Louis R.	Ill	Young, William Alexander	Ala
Wayne, George Fredrick	D.C.	B.S. 1928, Alabama Polytechnic In-	
B.S. in A.E. 1942, University	Mass	Young, William McCord	W Va
of Alabama		Young, Robert James	Mont
Wayne, Louis Belle	D.C.	A.B. 1941, The George Washington	
Wayne, Susan Lane	D.C.	University	
Wayne, Ruth D. Hall	Md	Young, William Edward	D.C.
Wayne, Joe Walter	Chas	Young, William George	N.Y.
Wayne, Margaret M. Dowell	Ohio	Young, Timothy Lee	Tex
B.S. 1941, The George Washington		Young, William Louis Jr.	D.C.
University		B.S. 1941, University of Maryland	
Wayne, Robert Christopher	D.C.	Young, John Simon	N.Y.
Wayne, Thomas F. Jr.	C.D.		
Wayne, Thomas Frederick University		Z	
Wayne, Henry Norman Jr.	D.C.	Zachary, William	Kans
		Zachary, William Jr.	Fla
Young, Emma Jacob	Y	A.B. 1941, University of Florida	
Young, John Arnold	I.C.	Zachary, Anne	D.C.
A.B. 1941, H.B. 1942, AM 1943,	Ohio	Zachary, Louise George	Mass
University of Michigan		B.S. 1941, Boston University	
Young, Robert Lee	Va	Zachary, John	N.Y.
Young, Eric Charles	Pa	Zachary, John	Mass
Young, John Lee	I.C.	Zachary, William Louis	D.C.
Young, Paul A.	Pa	Zachary, William George	Ill
Young, Arthur Raymond	Pa	Zachary, Philip George	D.C.
Young, Sam Cuthbert	Pa	B.S. in E.E. 1941, University of Penn-	
Young, Joseph	Ky	sylvania	
Young, Joseph H. Yates	D.C.	Zachary, David L.	D.C.
Young, Robert Anthony	D.C.	A.B. 1941, Vassar College	
Young, Robert M.	Md	Zachary, Ann Ruth	D.C.
B.S. in M.E. 1942, New Mex. Col-	NM	Zachary, James	D.C.
lege of Agriculture and Medicine		Zachary, John	
Young, Joseph Walter	Pa	B.S. 1941, New York University	
Young, Robert Anthony	Pa	Zachary, John W. Jr.	Kans
Young, Charles H. Hower	Md	A.B. 1941, Southern College	
A.B. B.A. 1924, University of		Zachary, Irving L.	N.Y.
Texas		A.B. 1941, Bowdoin College	
Young, Susan George	D.C.	Zachary, William George	Md
Young, Gail Marie	W Va	Zachary, William W.	D.C.
Young, John Lee	I.C.	A.B. 1941, The George Washington	
Young, Victor Marie	D.C.	University	
Young, Paul James	Pa	Zachary, Eugene	Pa
B.S. 1941, State Teachers College		B.S. 1941, University of Delaware	
(Chas. State, Pa.)		Zachary, Ulysses	N.Y.
Young, Margaret Louise	D.C.	B.B.A. 1941, College of the City of	
A.B. 1941, DePaul University		New York	
Young, Nancy Lynn	Tenn	Zachary, Sarah Ann	Fla
Young, M. Virginia	Md	Zachary, Margaret	Mass
Young, George Francis	D.C.	Zachary, David Louis	Md
Young, John N.	Pa	Zachary, Eugene M.	N.Y.
A.B. 1941, The George Washington		A.B. 1941, Hunter College	
University		Zachary, John Ray	D.C.
Young, John George N.	Chas	Zachary, Eugene	W Va
Young, Joseph Edward	Md	Zachary, George Robert	N.Y.
Young, Paul James	I.C.	Zachary, John Allen	D.C.
Young, Bernard Walter	Md	A.B. 1941, Worcester College (Md.)	
Young, Bernard Sophia	I.C.	Zachary, John Philip	D.C.
Young, John Brown	Md	B.S. 1941, University of Wisconsin	
B.S. 1941, United States Naval	D.C.	Zachary, John Eugene	D.C.
Academy		A.B. 1941, The George Washington	
		University	

Zimmerman, Maxine Mae	D.C.	Zolyak, Mushana Balkasha
Zimmerman, Olga Miller	D.C.	Zook, Joseph Michael
Zimmerman, William III	Va.	Zopf, William George
Zingaro, Fulvio Tulio	N.Y.	Zorzy, John
Zink, M. Shirley	D.C.	Zubrecky, Joseph R.
Zinn, Dean Surguy	N.M.	Zukowsky, Jeanette
A.B. 1940, The George Washington		Zurcher, Anna
University		Zussman, Esther Ann
Zisholtz, Sonia Miriam	N.Y.	Zussman, Herbert Louis
Zoltan, George Francis	Va.	Zwell, Gladys F.
Zola, Ida Mary	D.C.	

D.C.  
Pa.  
Ill.  
Mass.  
Pa.  
N.Y.  
D.C.  
Mich.  
Pa.  
D.C.

DEPARTMENT OF DEFENSE COURSES  
1942-43

STAFF OF INSTRUCTION

ENGINEERING

- Abbett, Robert W., Lt. Comdr., U. S. Navy, M.S. in C.E., C.E., *Associate in Contracts, Specifications and Engineering Relations*
- Anderson Bruce E., A.B., *Lecturer on Propellants and High Explosives*
- Anderson, George Lincoln, *Lecturer on Heating, Ventilating, and Elements of Air Conditioning*
- Ask, Reynold Everett, B.S. in C.E., *Lecturer on Photogrammetry*
- Ballam, Joseph, B.S., *Associate in Principles of Radio*
- Ballard, Richard Patten, *Associate in Surveying*
- Bell, Ambrose P., B.S., *Associate in Elements of Sanitary Engineering*
- Benson, Bernard Hepburn, *Associate in Combustion Engines*
- Blake, Roland Patton, B.S., *Lecturer on Fundamentals of Industrial Safety Engineering*
- Bours, Reginald Weller, *Associate in Radio Communication*
- Bruce, Clarence Smoot, B.S. in M.E., *Lecturer on Combustion Engines*
- Brunetti, Cleo, B.E.E., Ph.D., *Lecturer on Fundamentals of Radio*
- Burger, Clarence W., Jr., *Associate in General Engineering Drafting*
- Cahn, Leonard, *Lecturer on Fundamentals of Radio*
- Carpenter, Carl Arthur, B.S., *Lecturer on Theory of Reinforced Concrete Design*
- Cheney, Walter Lynn, Ph.D., *Supervisor in Physics*
- Cohen, Arthur R., B.S., *Lecturer on Calculus for Engineering and Research Personnel*
- Crocker, J. Allen, B.S. in E.E., *Lecturer on Electrical Motor Applications and Control*
- Cruickshanks, Benjamin Carpenter, B.S. in M.E., *Supervisor in Mechanical Engineering*
- Crump, Warren Clifford, B.C.E., *Lecturer on Map Making and Interpretation*
- Culp, Byron Jacob, B.S. in M.E., *Lecturer on Fire Protection Engineering*
- Cunningham, Robert Teed, B.S. in N.A., and Mar. Eng., M.S., *Lecturer on Ship Construction*
- Darnell, Richard C., B.S., *Lecturer on Aircraft Instruments and Engineering Instruments*
- Dassett, Myron Russell, *Associate in Map Making and Interpretation*
- Davis, Edward F., M.S., *Lecturer on Mechanical Drawing*



- Deuterman, Martin, C.E., *Lecturer on Advanced Reinforced Concrete Design*
- Diamond, Harry, M.S. in E.E., *Lecturer on Introduction to Radio Communication*
- Dock, Albert F., Lt. (i.g.), U. S. Navy, *Lecturer on Inspection of Engineering War Metals*
- Douglas, Walter Robinson, B.C.E., *Associate in Stress Analyses by Moment Distribution*
- Dubin, Eugene Arthur, B.S. in Arch. Eng., *Lecturer on Stress Analyses by Moment Distribution*
- Dutton, Harold Harrison, B.S. in C.E., *Lecturer on Engineering Fundamentals*
- Eagleton, Sterling P., M.E., *Lecturer on Advanced Air Conditioning*
- Emshwiller, John Patterson, B.S. in C.E., *Lecturer on Stress Analyses by Moment Distribution*
- Engen, Gilbert Adolph, B.S. in C.E., *Lecturer on Map Making and Interpretation*
- Ennis, Alfred, M.S., E.E., D.Eng., *Supervisor in Electrical Engineering*
- Erps, Harry R., B.S. in C.E., LL.B., *Lecturer on Theory of Reinforced Concrete Design*
- Feiker, Frederick Morris, B.S. in E.E., D.Eng., *Institutional Representative*
- Fojt, Albin A., A.M., *Lecturer on Introductory Engineering Mathematics*
- Fox, James Harold, A.M., Ed.D., *Educational Supervisor in Mathematics Course for Secondary School Teachers*
- Freedman, Celia E., A.M., *Associate in Elementary Mathematics for Engineering Computations*
- Freedman, Moses, B.S., *Lecturer on Elementary Mathematics for Engineering*
- Fuhrman, Ralph Edward, B.S. in C.E., M.S., *Lecturer on Water Supply, Sewerage, and Camp Sanitation*
- Gibson, Howard Daniel, Lt., U.S.N.R., B.S., *Associate in Radio Communication*
- Gulbrandson, Don I., B.C.E., *Associate in Fundamentals of Industrial Safety Engineering*
- Gulbrandson, Helen Reid, B.E., *Associate in Fundamentals of Industrial Safety Engineering*
- Hakkarinen, William, A.B., *Associate in Radio Communication*
- Hamill, John Stafford, B.S. in M.E., *Lecturer on Shop Processes*
- Heilprin, Laurence B., Ph.D., *Lecturer on Circuit Analysis by Operational Methods*
- Herr, Donald Lincoln, M.S. in E.E., *Lecturer on Principles of Radio*
- Higginson, W. S., M.S., *Lecturer on Cartography*

- Hill, Frederick W. L., E.E., *Lecturer on Electrical Motor Application and Control*
- Hitchcock, Frank Artemas, M.S. in C.E., C.E., *Director, National Engineering War Training Courses*
- Hobart, Thomas D., B.S. in E.E., *Associate in Principles of Radio*
- Holley, Max Vinson, B.S., *Associate in Principles of Radio*
- Huntoon, Robert D., Ph.D., *Lecturer on Fundamentals of Radio*
- Iannelli, Edward, B.E.E., *Lecturer on Fundamentals of Radio*
- Ingram, Harry L., Jr., *Lecturer on General Welding Design*
- Jacobs, Donald H., A.M., M.S., *Lecturer on Applied Optics*
- Jacobs Harry Victor, *Lecturer on Plane Table Topography*
- Jester, Simon van T., Jr., B.S. in N.A. and Mar. Eng., *Associate in Ship Construction*
- Johnstone, Don, Lt. Comdr., U.S. Navy, B.S. in C.E., *Lecturer on Contracts, Specifications, and Engineering Relations*
- Kelly James F., *Associate in Topographic Drafting*
- Koehl, George Martin, A.M., *Lecturer on Introduction to Engineering Physics*
- LaBell, Oldric J., B.S. in C.E., LL.B., *Lecturer on Surveying*
- Landen, David, *Lecturer on Mapping with Aerial Photographs*
- Langs, Mary Frances, A.M., *Lecturer on Introduction to Engineering*
- Long, Grace Horton, A.M., *Assistant in Mathematics Course for Secondary Teachers*
- Lovewell, Kermit Milton, B.S. in E.E., *Lecturer on Electrical Engineering*
- McComb, Archibald H., Jr., B.S. in N.A. and M.E., *Associate in Ship Construction*
- McDaniel, Allen Boyer, B.S., *Lecturer on Building Construction and Supervision*
- McVay, Millard Sayre, B.S. in E.E., M.S., *Lecturer on Circuit Analysis by Operational Methods*
- Meade, J. E., B.S., *Associate in Radio Communication*
- Michelson, Charles John, B.S. in M.E., *Lecturer on Engineering Fundamentals*
- Mintz, Fred, B.S., *Lecturer on Elementary Mathematics for Engineering Computations*
- Moffatt, Paul Kirby, B.S. in E.E., *Lecturer on Electrical Motor Applications and Control*
- Moore, Roland H., B.S. in C.E., *Lecturer on Topographic Drafting*
- Muth, Raymond Francis, B.S. in M.E., *Lecturer on Tool Engineering*
- Myers, Joseph Francis, B.S. in C.E., *Associate in General Engineering Drafting*
- Niekum, Philip, Jr., B.S., *Lecturer on Inspection of Engineering Defense Metals*

- Nutting, Perley G., Jr., M.S., *Lecturer on Introductory Applied Optics*
- Oleinik, Joseph Carl, B.S. in C.E., M.S., *Lecturer on Timber Construction*
- Orndorff, Roy Lee, B.S. in C.E., *Lecturer on Elementary Structural Design Detail*
- Page, Chester Hall, Ph.D., *Lecturer on Advanced Engineering Mathematics*
- Peake, Harold Jackson, B.S. in E.E., *Lecturer on Principles of Radio*
- Poast, LaVerne M., B.S. in E.E., *Associate in Radio Communication*
- Rhine, Walter Frederick, B.S. in C.E., *Lecturer on Plane Table Topography*
- Ryavec, Ernest Anthony, M.S., *Associate in Inspection of Engineering War Metals*
- Sangster, George Edward, B.E.E., *Associate in Electrical Motor Applications and Control*
- Sashoff, Stephan Pencheff, Lt. Comdr. U.S.N.R., M.S. in E.E., *Lecturer on Radio Communication*
- Schult, Veryl, A.M., *Lecturer in Mathematics Course for Secondary School Teachers*
- Seeger, Raymond John, Ph.D., *Supervisor in Physics*
- Shapiro, Maurice Mandel, Ph.D., *Lecturer on Intermediate Engineering Mathematics*
- Silberstein, Richard, A.B., E.E., *Lecturer on Radio Communication*
- Singleton, Earl, M.S. in E.E., *Lecturer on Introductory Engineering Mathematics*
- Speert, Julius L., M.S., *Associate in Cartography*
- Stolaroff, Myron Joe, A.M., *Lecturer on Principles of Radio*
- Taylor, James Henry, Ph.D., *Educational Supervisor in Mathematics Course for Secondary School Teachers*
- Taylor, Rolla H., B.S. in C.E., *Associate in Engineering Fundamentals*
- Townsend, Henry McDonald, *Lecturer on Topographic Drafting*
- Walker, Edgar Stover, B.S. in C.E., *Lecturer on Plane Table Topography*
- Washnock, John H., Jr., M.S., *Associate in Propellants and High Explosives*
- Weinfeld, Lillian, *Associate in Intermediate Engineering Mathematics*
- Willcutt, Frederick Weiss, M.S. in E.E., *Lecturer on Electrical Engineering Review*
- Wilson, Howard, B.S. in M.E., *Lecturer on Advanced Mechanical Drawing*
- Woody, Alva, *Associate in Plane Table Topography*

## STUDENTS REGISTERED

### A

Aaberg, Arnold Lawrence  
Abel, Earle Isadore  
Abel, John Freda  
Abramson, Herbert Michael  
Abramson, Stanley Rosa  
Adams, M. Jeanette  
Ackley, Rosemary E.  
Adams, David Charles  
Adams, Paul  
Adams, John  
Adams, Harry  
Adams, Leonard  
Adair, Benjamin  
Ader, Philip S.  
Adams, Forrest Scott  
Agarwal, Louis  
Agnola, Richard Salvatore  
Agnola, Thomas I.  
Agnola, John P.  
Agnola, Thomas Frederick  
Agnola, Dorothy Earle  
Agnola, William Seth  
Agnola, Albert Victor  
Agnola, Mary Ruth  
Agnola, Frederick Ferdinand  
Agnola, John F.  
Alexander, James Harold  
Alexander, John William  
Alexander, John  
Alexander, Samuel Varborough, Jr.  
Agnola, Virginia Riemann  
Agnola, Jack  
Agnola, Carl J.  
Agnola, Robert Thomas  
Agnola, Esther E.  
Agnola, Roger E.  
Agnola, Evelyn  
Agnola, Irina Valeria  
Agnola, James R. L.  
Agnola, John Joseph  
Agnola, Vera Vail  
Agnola, William A.  
Agnola, Charles R., Jr.  
Agnola, John Satge  
Agnola, William Herbert  
Agnola, Bernard David  
Agnola, Myron Arnold  
Agnola, Zoltan Samuel  
Agnola, Raymond LaVern  
Agnola, Robert R.  
Agnola, Albert Gordon  
Agnola, Albert S.  
Agnola, Charles William  
Agnola, Erving F.  
Agnola, Francis William  
Agnola, Harold Martin  
Agnola, John Read  
Agnola, Paul F.  
Agnola, Ray Lawrence  
Agnola, Stephen F.  
Agnola, Warren K.  
Agnola, William I.  
Agnola, H. Ward S.  
Agnola, Louise Marie  
Agnola, Nathan  
Agnola, William J.

Appelbaum, Edward Martin  
Appelbaum, Sarah Levin  
Appelbaum, Harold Vargil  
Appelbaum, Alan  
Appelbaum, James  
Appelbaum, Amy Eastman  
Appelbaum, Jeanne Cassel  
Appelbaum, Henry David  
Appelbaum, George Deansmore  
Appelbaum, Charles Genetall  
Appelbaum, Lane Walter  
Appelbaum, James T.  
Appelbaum, Anne E.  
Appelbaum, Isador Revere  
Appelbaum, Harriette Rose  
Appelbaum, Louis Warner  
Appelbaum, Paul John  
Appelbaum, Maria Gail  
Appelbaum, Jeanne Antoinette  
Appelbaum, John J.  
Appelbaum, Arthur Wendler  
Appelbaum, Richard Louis  
Appelbaum, Louise  
Appelbaum, Carl Allen

### B

Baber, Carolyn M.  
Baber, Stephen Samuel  
Baber, Joseph Andrew  
Baber, Richard William  
Baber, Joseph T.  
Baber, Leslie Merle  
Baber, Francis George  
Baber, George Louis, Jr.  
Baber, James W.  
Baber, Edward Frank  
Baber, Robert Lee  
Baber, Milton  
Baber, Izna Keel  
Baber, Fred Louis  
Baber, Harrison Lewis  
Baber, Henry Gardner, Jr.  
Baber, James  
Baber, Kenneth LeRoy  
Baber, Nathan George  
Baber, Samuel Eugene  
Baber, Ernest Riemerker  
Baber, Irving Jay  
Baber, John  
Baber, Ford M.  
Baber, James Hall  
Baber, Sam  
Baber, Benjamin Henderson  
Baber, Samuel A.  
Baber, Eugene Harry  
Baber, Benjamin Victor  
Baber, Stephen William, Jr.  
Baber, William Downey  
Baber, Edward Parker  
Baber, Betty May  
Baber, James Martin  
Baber, Robert Lewis  
Baber, Emily E.  
Baber, Herbert  
Baber, Henry E.  
Baber, Anthony Stephen  
Baber, Richard Lawrence



- Basnight, Arvin Odell  
 Bass, Leo  
 Bass, Lillian  
 Bastedo, Edward Harold  
 Battey, Miriam Grace  
 Battley, Virginia A  
 Baughman, Thomas Franklin  
 Baus, Donald Eugene  
 Baxter, Maud Neilson  
 Bay, Charles Gilbert  
 Bayles, Carline McDonnell  
 Baylor, Ben Byrd, Jr.  
 Bayne, Lewis Neale  
 Beach, Eugene Yeager  
 Bealle, John  
 Beam, Russell A  
 Bean, Louie Coiner  
 Beardale, Harold Charles  
 Beardslee, Frederick Pardee  
 Beasley, Richard Arthur  
 Beatson, Jean Campbell  
 Beber, Eugene Arthur  
 Beck, Frances Greif  
 Becker, Bernard C  
 Becker, LaVergne  
 Beckner, Marcus Lloyd, Jr.  
 Bednorz, Mary Clare  
 Bee, Max Culbertson  
 Been, Jerome I  
 Behn, Wilbert R  
 Behrens, Raymond William  
 Bell, Ambrose P  
 Bell, Elsie Jeanne  
 Bell, Warren Candler  
 Bellows, Wesley William  
 Benjamin, Sidney  
 Benjamin, Vernon Edgar  
 Bennett, Clarence O  
 Bennett, William Charles  
 Bensin, Basil M  
 Bensinger, Samuel  
 Benson, Harold Robert  
 Benson, Warren Milton  
 Bentley, Barbara Tucker  
 Benton, Eileen Rosabel  
 Berberich, Charles Frank  
 Berg, Serena M  
 Berger, Howard Martin  
 Berggren, Axel W  
 Berlangiere, Camille Helen  
 Berlangiere, Marie Ann  
 Berlitsky, George Albert  
 Berman, Irving  
 Berman, Nelson B  
 Berman, Sol  
 Bernot, Edward Joseph  
 Bernstein, Bernard  
 Bernstein, Herman  
 Bernstein, Joseph  
 Berry, Warren Edwin  
 Bertram, Charles Grant  
 Besarick, Edith Hale  
 Bessio, Oscar  
 Bessio, Walter  
 Bestimt, William  
 Beuchert, John Theodore  
 Beveridge, Marjorie Campbell  
 Bewig, Karl W  
 Bice, Earl Russell  
 Bickford, Martin  
 Bieker, Harry A  
 Bieker, Leonard  
 Bieker, Walter John  
 Biggins, Edward Joseph  
 Biggs, Howard Matthew  
 Biggs, Wilford  
 Bihl, Arthur  
 Bill, Priscilla Ann  
 Bindes, Louis Lloyd  
 Bingham, Clifford Horral  
 Binstock, Lawrence  
 Birnbaum, Adele Pauline  
 Birnbaum, Milton  
 Bishopp, Sidney K  
 Black, Fred Donald  
 Black, Harry I  
 Blades, Roger Thomas  
 Blair, Cecil Charles  
 Blair, Raymond H  
 Blake, Francis E  
 Blake, Gladys C  
 Blake, Vincent Francis  
 Blanchard, Josephine I  
 Blanchard, Sigmund H  
 Blackman, Robert Darrel  
 Bleier, Paul  
 Blood, Robert Earl  
 Blotzstein, Ethel  
 Block, Irving Alexander  
 Bloom, Abraham  
 Bloom, Paul Elmer  
 Bloomer, Helen Howard  
 Blose, John Martin  
 Blose, Joseph  
 Blose, Lester M  
 Blose, Roger C  
 Blumberg, Nathan  
 Blume, H. Walton  
 Blumenshal, Bernard  
 Blumstein, Samuel  
 Blumwright, Gerald Martin  
 Block, Charles James  
 Blocker, Herbert H  
 Blocker, John Bernard  
 Bogan, Willma W  
 Bogan, Lester Jesse  
 Boggs, Herschel Jefferson  
 Bokovoy, Frank Leonard, Jr.  
 Boley, Kenneth N  
 Boles, Ruth Montgomery  
 Bollinger, Russell Morre  
 Bollum, Carl William  
 Bombach, Carlos David  
 Bonamassa, Frank  
 Bond, Henry Nelson  
 Bone, Homer  
 Bonner, William Russell  
 Boone, Morton Robert  
 Boone, Hazel Alva  
 Born, Carl Joseph  
 Boshkin, Henry  
 Bosley, George Quentin  
 Boswell, Mae Gertrude  
 Bouldin, Mae Crump  
 Boule, George Peter  
 Bourath, Lucille P  
 Bours, Reginald Weller  
 Bowen, William Allen, Jr.  
 Bower, William Arval  
 Bowers, Edward C  
 Bowers, Vine Cahoon  
 Bowles, Robert Monroe  
 Bowser, George Lee  
 Bowser, Paul Glenwood  
 Bowser, Robert Joseph  
 Bowles, James Philip

Boymel, Bernard Robert  
 Boynton, Joe Brooks  
 Bozer, Jack  
 Bradford, Augustus  
 Bradley, Charles Hamilton, Jr.  
 Bradley, Frank Xavier  
 Bradley, James Frederick, Jr.  
 Bradley, Otis Taylor  
 Brady, Maurice Selby  
 Brady, Ralph A.  
 Brand, Otto  
 Brandenburger, Oscar Louis  
 Brannan, Joseph Ralph  
 Bransby, Robert Kuhns  
 Braum, Daniel Matthew  
 Brassell, Marie Louise  
 Braunfeld, Leonard  
 Brauning, Glen Gerald  
 Brauner, Wila W.  
 Brechner, Marion Brody  
 Briggs, Nina Amelia  
 Breiter, Mark C.  
 Brieseman, Donald Oliver  
 Briesner, Abe  
 Breslow, Paul  
 Brewster, Christine Kesler  
 Bridgewater, Donald Newell  
 Bright, Miriam Harwood  
 Briley, William Kenneth  
 Briley, John Robert  
 Britt, Martin Luther  
 Britton, Lesley Arthur  
 Brode, Knowland Locke  
 Brodtkorb, James Borrell  
 Brooks, Boyd Shreve  
 Brooks, Charles Albert  
 Brooks, Leonard Paul  
 Brooks, Margaret Louise  
 Brotman, Solomon  
 Brown, Camille H.  
 Brown, Charles Walter  
 Brown, Darwin Charles  
 Brown, Ernest Brooks  
 Brown, Francis Willis  
 Brown, Harriett Elise  
 Brown, Henry Alvin  
 Brown, Julius  
 Brown, Leonard Ralph  
 Brown, Lorraine French  
 Brown, Marshall  
 Brown, Thomas Alan  
 Brown, William Saunders  
 Brownell, Robert Lewis  
 Browning, Harold  
 Brownee, Ethel Roberta  
 Brozovsky, Maria  
 Bruce, Tacey Kirtz  
 Brunk, William Rudolph  
 Bryant, Edward James  
 Bryant, James Vincent  
 Bueck, Robert Eugene  
 Buchanan, Charles Edward, Jr.  
 Budger, Hester Kubaik  
 Buck, Richard Sutton, Jr.  
 Buckman, Kate  
 Buckman, Robert A., Jr.  
 Buckley, John Temple  
 Buckley, Newton E.  
 Buckwalter, Gordon Herbert  
 Buckwalter, Susan  
 Buckwalter, John Bonnet  
 Bulanduk, William John  
 Bullock, Irving

Bulkholtz, George Otis  
 Bull, Lillian K.  
 Bullman, George William  
 Bullockus, Theodore  
 Burak, Solomon Charles  
 Buranen, Wilbert Henry  
 Burdine, George Murray  
 Burg, Solomon  
 Burgess, Chester Warren  
 Burgess, David Seely  
 Burgess, Robert Fred  
 Burgess, Roy Wilson  
 Burke, Leita V.  
 Burke, Marie S.  
 Burke, William Ralph  
 Burkert, J. Walter  
 Burkhard, Pauline Anne  
 Burkhard, Ralph Halbert  
 Burlack, Eda  
 Burnett, James Adam  
 Burns, John Glasgow  
 Burns, Richard Christopher  
 Burrage, John D.  
 Burdick, George Shaw  
 Burton, Blenda LeRoy  
 Burton, John Taylor  
 Burton, Stephen Dixon, Jr.  
 Busch, Albert Henry  
 Buskin, Mary Florence  
 Butler, Earl M.  
 Butler, George William  
 Butler, Harry John  
 Buttaci, Jean C.  
 Byrne, Andrew Ambrose  
 Byers, Barbara Ann  
 Byrnes, Aaron Arthur  
 Bystrom, John Helmer  
 C

Cabell, Frank Peter  
 Calahan, Estelle Marie  
 Calahan, Mary Kathryn  
 Calista, Servando Nemesio  
 Cambridge, Charles Guy  
 Camp, Ralph H. D.  
 Campbell, Bernard Joseph  
 Campbell, Charles James  
 Campbell, James P.  
 Campbell, John Edgar  
 Campbell, John Ignatius  
 Cameron, Geo. Anthony  
 Cannara, Dante Louis  
 Cannon, Paul G.  
 Cantor, Irving  
 Capelli, Joseph Thomas  
 Caputo, Joseph Robert  
 Caputo, Michael Angelo  
 Caporaso, Russell Anthony  
 Caputo, Frank Michael  
 Carabier, Marjorie  
 Carlier, Robert Warren  
 Carey, Howe Milton  
 Carlson, Dick  
 Carlson, Warren Everett  
 Carlson, Charles O.  
 Carney, Joseph Francis  
 Caruso, Samuel Zax  
 Carpenter, Frederick Eugene  
 Carpenter, Robert Charles  
 Carr, Wiles W.  
 Carroll, Arthur Dale  
 Carroll, George Thomas  
 Carson, Clifford Clyde  
 Carter, Howard Allan

- Carter, Robert I  
 Carter, William Harry  
 Cartin, William Joseph  
 Cartrette, Kenneth Parker  
 Cary, Martha Jean  
 Cascino, Jerome Francis  
 Cassell, James H.  
 Castantini, Ralph  
 Castillos, Fred Hugo  
 Castle, Charlotte Clarence  
 Castle, Thelma Mistrone  
 Castleman, Riley Garfield  
 Cavin, Howard Raymond  
 Cease, Harry Eugene  
 Cesaletti, Louis J.  
 Chaconas, Nicholas James  
 Chadbourne, Humphrey Lincoln  
 Chaimson, Robert Kent  
 Chalfant, Eugene Wesley  
 Chamberlain, John David  
 Chandler, James Kelly  
 Chapman, Frank Spencer  
 Chapman, Rose-Marie Edmunds  
 Chapman, William Henry  
 Chappnick, Harold  
 Chappellear, George Edwin  
 Charske, Charles Johnson  
 Chase, Julian Dwight  
 Chasoff, Abraham  
 Chatfield, Evelyn Duff  
 Chaves, Miguel B.  
 Chazin, Matthew  
 Cherdis, George  
 Cherry, John Myrick, Jr.  
 Chesley, Percy Linton  
 Chesnev, Daniel Roger  
 Chick, Isidore  
 Chilcoat, Ralph LeRoy  
 Childs, Benjamin Fay  
 Chinkes, Sam  
 Chinn, Marion Wesley  
 Chipp, Rodney Duane  
 Choinowski, Stanley Anthony  
 Christensen, Otto Robert  
 Christenson, Carl Webster  
 Chromak, Leon Peter  
 Churchman, Gilpin  
 Chwirut, Theodore John  
 Cichels, Emil Steven  
 Cimino, Carl Joseph  
 Ciomei, Raymond George  
 Citron, Lester  
 Claire, Charles Niles  
 Clancy, Arthur Willis  
 Clark, Donald Edson  
 Clark, Emory Wilcox  
 Clark, George Gerdwood  
 Clark, Howard Chanson  
 Clark, James Lawrence  
 Clark, Margaret  
 Clark, Marvan Elbert  
 Clark, Ralph Joseph  
 Clark, Robert Ballenger  
 Clark, William Terry  
 Clarke, Morris Herbert  
 Clay, Leo Wells  
 Claypool, Virginia M.  
 Clayton, Alexander Benjamin  
 Clement, Joe W., Jr.  
 Clendening, Harry I.  
 Clevantine, Walter MacFeat  
 Click, Virginia McConaughy  
 Clift, Helen Louise  
 Clifton, Auline Beatrice  
 Cline, Robert W.  
 Clifton, Alta  
 Close, Nicholas J.  
 Cluff, Norman Albert  
 Clymer, William Lawrence  
 Coan, George William  
 Cobb, Ross Calvin  
 Coe, Salvatore Louis  
 Coffey, Malcolm  
 Cogswell, Frank Kenneth  
 Cohen, Abram Benjamin  
 Cohen, Arthur Raymond  
 Cohen, Bernard Carlton  
 Cohen, Bernard Lawrence  
 Cohen, Henriette Patt  
 Cohen, Herman  
 Cohen, Jacob Irving  
 Cohen, Robert Meyer  
 Cohen, S. I.  
 Coled, Edwin West  
 Cole, Harryette N.  
 Cole, Marcus  
 Cole, Milton A.  
 Cole, Howard Lewis  
 Cole, Florence Aileen  
 Cole, Francis Gordy  
 Cole, Fred Leland  
 Collier, Robert Barger  
 Collins, John Walter  
 Coltrane, Charles Benjamin  
 Conaway, Murray  
 Conner, Thomas Clarence  
 Conquest, Murray  
 Conlister, Nicholas Daniel  
 Conner, James Edward  
 Conner, John Michael, Jr.  
 Conner, George Tolman  
 Cook, Lawrence Karekin  
 Cook, Louise M.  
 Cook, Eugene  
 Cook, Mildred Antoinette  
 Connaughton, Owen Harrison  
 Connelly, David Joseph  
 Conner, Andrew Walter  
 Conner, Edward Springfield  
 Conner, John Chamberlain  
 Conner, Ronald  
 Conoff, Anna Anna  
 Conover, John Woodruff  
 Conroy, James D.  
 Conter, Mary Ann  
 Cook, Harold G.  
 Cook, John Stanley  
 Cooley, Cyrus L.  
 Cooley, Robert Laetie  
 Coon, Martin R.  
 Cooper, Charles Henry  
 Cooper, Grace M.  
 Cooper, Jack  
 Cooper, Jacob N. Zell  
 Cooper, Marvin Samuel, Jr.  
 Cooper, Robert Arnold  
 Cooper, Robert Charles  
 Cooper, S. S. S.  
 Copeland, Robert Joseph  
 Corkery, Michael Joseph  
 Corcoran, Larry  
 Corrado, Vincent I.  
 Costantino, Ralph  
 Costello, William  
 Costello, Francis Timothy  
 Coulter, James DeWayne

Courtney, R. bert Lawrence  
 Courtwright, John Graham  
 Cowan, Berland  
 Cowger, Roland Over  
 Cox, Catal  
 Cox, Daniel John  
 Cox, John V. C. L.  
 Cox, William Carlisle, Jr.  
 Coxe, Elizabeth Waver  
 Coxe, John Vincent  
 Cozens, Richard Edward  
 Cozzen, John Thomas  
 Craig, David Richardson  
 Craig, Thomas James  
 Craig, Robert Peter  
 Cramer, Robert Lee  
 Crawford, Frank Edward  
 Cress, Robert Frank  
 Cress, John, Harold George  
 Cress, Louis William  
 Crawford, Hugh Bernard  
 Cress, Gerald Maurice  
 Cress, William Francis  
 Cress, Frederic Morgan, Jr.  
 Crosby, Alex Wheeler  
 Crowell, Philip J.  
 Crowe, William Austin  
 Crowley, Lila M.  
 Crowl, Arthur Eugene Jr.  
 Cullen, William Henry  
 Cummings, Louise Mary  
 Cummings, Russell L.  
 Cummings, William Brown  
 Cunniff, Thomas Patrick  
 Cunniff, Harold Neal  
 Cunniff, Joseph A.  
 Cunniff, Walter Robert  
 Curry, Margaret Mary  
 Curry, LeAnne Mary  
 Curry, Rembert Lee Roy  
 Curry, William Francis  
 Custer, Louis R.  
 Cyt, Lawrence George  
 Czuchra, Anthony Bernard  
 Czokos, Vito Michael

## D

D'Angel, Fernand  
 Dabbert, Anna Frances  
 Dabbert, Paul Philip  
 Dale, Charles Percy  
 Dale, James Bernard  
 Dalple, Chester Battist  
 Daniels, Leo  
 Daniels, Louis Kathleen  
 Danton, L.  
 Danton, Gertrude Hazel  
 Danton, Stanley  
 Danton, Stephen R. Lerick  
 Danton, Donald Alvarum  
 Dant, Harry Eugene  
 Danton, Robert Melvin  
 Danton, Myron Russell  
 Danton, Albert Norman  
 Danton, Suzanne Louise  
 Danton, Benjamin Joseph  
 Danton, Frederic Armstrong, Jr.  
 Danton, Harold Francis  
 Danton, James Middleton  
 Danton, Samuel  
 Davis, Charles Harold  
 Davis, Anne May  
 Davis, Gertrude Pearl

## Davis, Harry Meyer

Davis, Harvey Paul  
 Davis, Mabel Virginia  
 Davis, Marion Raymond  
 Davis, Marvin Pierce  
 Davis, Pleasant Baxter  
 Davis, Raymond Henry  
 Davis, William Robert  
 Davis, William Vernon  
 Davis, George Vincent  
 Day, Paul Wright  
 Day, Ruth Stoddard  
 Deacon, George Frederick, Jr.  
 Deane, William Lawrence, Jr.  
 Deane, Walter William  
 Deane, Kenneth Robt  
 Deane, E. W.  
 Deane, Harry Olin  
 Deane, Lucie Christian  
 Deane, Louis Lyman  
 Deane, Hattie Brown  
 Deane, Mary Rose  
 Deane, Frank M.  
 Deane, Bertha A.  
 Deane, Ray Franklin  
 Deane, James Francis  
 Deane, Anne Thomas  
 Deane, Joyce Parsons  
 Deane, James P.  
 Deane, Joseph Manning  
 Deane, Ralph Joseph  
 Deane, John Philip  
 Deane, Andrew Earl  
 Deane, Nicholas John  
 Deane, Ruth Conrad  
 Deane, Ernest Markin  
 Deane, Mary  
 Deane, William Edward  
 Deane, Helen Caroline  
 Deane, Martha  
 Deane, Pauline Albert  
 Deane, Amelia  
 Deane, Michael Joseph  
 Deane, Patrick  
 Deane, Arthur Stacy  
 Deane, Joseph  
 Deane, Norman I. S.  
 Deane, Irma V.  
 Deane, William Kenneth  
 Deane, Joseph Charles  
 Deane, Allen Burton  
 Deane, Louis Charles  
 Deane, Aaron Philip  
 Deane, Harold R.  
 Deane, William Joseph  
 Deane, Lester Francis  
 Deane, Maurice Francis  
 Deane, Joseph L.  
 Deane, Nathan  
 Deane, Herbert  
 Deane, Victoria Anna  
 Deane, Albert Frederick  
 Deane, Anna Evangeline  
 Deane, Edward Francis  
 Deane, Frederick Arthur Jr.  
 Deane, M.  
 Deane, David  
 Deane, Jack  
 Deane, George Donatiano  
 Deane, Harry Charles  
 Deane, Guy Somerville  
 Deane, George Franklin  
 Deane, Webster C.



Doolittle, Richard Neil  
 Doris, Arthur Judas  
 Dorman, Pauline  
 Dorsey, Guy H.  
 Dorsey, William Arnold  
 Douglas, Charles Alexander  
 Douglas, Frank J.  
 Douglas, Walter Robinson  
 Dowe, Ray Michael  
 Dowers, Albert Allen  
 Dowler, William Cleveland  
 Downing, Charles John  
 Downing, Lloyd Londros  
 Drake, Jack Everett  
 Drake, Mildred Elaine  
 Drake, Rush S., Jr.  
 Draudt, Harold August  
 Driskill, James Plummer, Jr.  
 Drohomier, Michael James  
 Drumball, Lee  
 Drumheiser, Marvin Frederick  
 Durbin, David M.  
 Dueno, Fred H.  
 Duey, Paul Clifford  
 Dufford, Lucille Marie  
 Duffy, Anne M.  
 Duffy, Edward James  
 Duffy, Francis Arthur  
 DuFrane, Donald Vernon  
 Duhan, Charles Samuel  
 Dulberg, Louis  
 Dunai, M. Richard  
 Dunbar, Erroll  
 Dunfee, Bernadine L.  
 Dunich, Joseph P.  
 Dunlap, Anna Laura  
 Dunlap, Fannie Lorana  
 Dunn, Fred DeWitt  
 Dunn, Temple D., Jr.  
 Dunne, Raymond Joseph  
 Dupuis, James Phillip  
 Durkee, Earle Harold  
 Dwarshuis, John  
 Dwyer, Bertha L.  
 Dwyer, Roger Francis

## E

Earle, John Keun, Jr.  
 Earley, Agnes Geraldine  
 Eck, Robert Charles  
 Eckels, Arthur R.  
 Eckerley, Ruth Lou  
 Edelman, Robert Bernard  
 Edmonstone, Marian Louise  
 Edwards, Charola May  
 Edwards, Gary Newton  
 Edwards, Ralph Nathaniel  
 Egan, Theodore Newman  
 Ehrlich, Benjamin  
 Ehrlich, Leola Seltzer  
 Eckhorn, Raymond Aloysius, Jr.  
 Eide, Irene M.  
 Eidenbach, Lee William  
 Eiland, Ralph Thomas  
 Eidebeck, Arthur Blake  
 Eichlander, Harry H.  
 Eisenstein, Joseph Owen  
 Eisenberg, Philip  
 Eitaner, Jerome  
 Elgart, Alexander  
 Elkin, Gladys  
 Ellen, Martin  
 Elliot, Kathryn Powers

Elliot, Clifford Lincoln  
 Elliott, Richard L., Jr.  
 Ellis, Charles Robert  
 Ellis, Dean Burrill  
 Ellis, William Godey  
 Elvy, Deborah Crawford  
 Embrey, Lyle  
 Engelman, Harry  
 Engle, Paul  
 Engle, Elizabeth Owen  
 Enos, John Gary  
 Entler, Russell Vance  
 Epstein, Leon  
 Epstein, Seymour  
 Erickson, Thomas I.  
 Erickson, Norma Mary  
 Eskew, Solomon  
 Ettinger, Harold  
 Evans, Frank John  
 Evans, George Dawson  
 Evans, Edward Theodore  
 Ezzell, Robert Clarence

## F

Fabrizio, Leo  
 Fair, Hugh Angelo  
 Fair, Catherine Alexander  
 Fair, Patricia Frances  
 Fair, Mary Fredericka  
 Fair, Steven  
 Fair, William  
 Fair, Susan Barton  
 Fair, Monte George  
 Fair, Frank Paul  
 Fairbank, Edmund Charles  
 Fairber, Hyman  
 Fair, William Russell  
 Fairer, Nancy David  
 Fairman, Elizabeth Mildred  
 Fairman, William Ambrosial  
 Fair, Charles D.  
 Fairman, Catherine  
 Fair, Harry Herman  
 Fair, James Clayton  
 Fair, Johnathan  
 Fair, Charles  
 Fair, Steven  
 Fair, George  
 Fairman, Albert  
 Fairman, Herman William  
 Fairman, Sam  
 Fairman, Albert  
 Fairman, William Henry  
 Fairman, George Franklin  
 Fairman, Paul Morris  
 Fair, Carolyn  
 Fair, Fred H. Rex  
 Fairman, Robert Emmet  
 Fairman, Louis May  
 Fairman, Louis Taylor  
 Fair, Elsie P.  
 Fair, Mary Elizabeth  
 Fair, Oscar B.  
 Fair, Fred A., Jr.  
 Fair, Lela T.  
 Fairman, Leonard  
 Fairman, Jack  
 Fair, Carl Marvin  
 Fair, Dean Russell  
 Fair, Michael Harold  
 Fair, Lawrence Lewis

Fifer, George Frederick  
 Filkin, Burton Carl  
 Filiez, Robert A  
 Finch, Harry  
 Finkelstein, Harold  
 Finley, James J.  
 Finley, Milton Elwood  
 Finzer, Lester Joseph  
 Finzel, Felix Edward  
 Firth-Eagland, Margaret  
 Fischer, Homer Edward  
 Fischweicher, Joseph  
 Fisher, Andrew Edward  
 Fisher, Victoria Barbara  
 Fishon, Robert Douglas  
 Fitzhugh, Francis Michael  
 Flavell, Alan Faye  
 Fleischer, Harold  
 Fleisher, Herbert Michael  
 Fleming, Gertrude Marjory  
 Fleming, John Vincent  
 Flint, George Marsh, Jr.  
 Flynn, Vera M.  
 Foerster, Herbert G.  
 Foggatt, Archie Albert  
 Folse, Julius Andrew  
 Folse, Leonard Roy  
 Fonoroff, Bernard  
 Ford, Fred Langley  
 Ford, John William  
 Fore, Marc Randall  
 Forman, John Warren  
 Foreman, William Aubrey  
 Forsyth, George Howard, Jr.  
 Fortunato, Josephine Madalena  
 Foster, Charles F.  
 Foster, Charles Manning  
 Foster, James I. John  
 Foster, Kenneth  
 Fourn, Lyman Edwin  
 Fowler, Harry Samuel  
 Fox, Ralph Walter  
 Fram, Richard Charles  
 Francisco, Allen Charles  
 Frank, Howard Greenleaf  
 Frankel, Josef  
 Frankenberg, Gypsy Bell  
 Frankle, Joseph Martin  
 Franklin, Lela Evelyn  
 Franz, Fred David  
 Fraser, Burton  
 Fraser, Earl Donald  
 Frasier, Wallace G., Jr.  
 Fraustheim, Norman August  
 Frazier, Arthur Henry  
 Frazier, Robert Arthur  
 Frazier, Harry George  
 Frazier, Emily Marjorie  
 Frenetman, Moses  
 Frenetman, Howard  
 French, Leonard  
 French, De Leon Lena  
 French, Bertha Natalie  
 French, George William  
 French, Gregory David  
 Frenchman, Ann  
 Frenchman, David C.  
 Frenchman, Gertrude S.  
 Frenchman, Isidore Herman  
 Frenchman, Leo  
 Frenchman, Murray  
 Frenchman, Seymour Jack  
 Fritz, Raymond John

Fromm, Louis  
 Fromey, George Claude  
 Fugitt, Charles Hunt  
 Fulger, Russell Kenneth  
 Fuller, Thomas  
 Fulmer, George Mains  
 Funk, Charles Roy  
 Funke, Esther

## G

Gaard, Harold  
 Gadd, Frank Willis  
 Gadea, George Leon  
 Gammner, Robert I.  
 Gapsone, Benito  
 Garsing, Herman William III  
 Gasser, Joseph Thomas  
 Galante, Frank Anthony  
 Gale, Leonard  
 Gallagher, Mildred Isabel  
 Galloway, Thomas McCash  
 Gambell, Charles E.  
 Gansal, Lester William  
 Ganswer, Charles Elmer  
 Ganswer, Richard Aired  
 Ganz, Ernest Henry  
 Gansner, Henry Wallace  
 Gathred, Martin John  
 Gathwick, Roger Boleman  
 Garner, Louis Eugene, Jr.  
 Garrett, Harwell Harrison  
 Garrett, H. Roger  
 Garrett, Marion May  
 Garton, Ethel Irene  
 Garwood, Helen Leedham  
 Gausman, John Edward  
 Gausse, David Slater  
 Gaveny, Helen Galt  
 Gavriloff, Boris J.  
 Gentry, Francis Cole  
 Gentman, Eva  
 Gere, Edwin Austin  
 Giffen, Julius Dan  
 Gimaley, Goldie  
 Ginde, Edwin E.  
 Ginnery, James Gordon  
 Gipper, Lester Henry  
 Gissman, William Clyde  
 Gitter, David Aaron  
 Gittman, Aaron  
 Gittner, Carl  
 Gittner, John Donald  
 Gittner, Bernard  
 Gittner, John Meredith  
 Gittner, Seymour Irvin  
 Gittner, Leonard  
 Gittner, Daniel  
 Gittner, Irving H.  
 Gittner, Edward  
 Gittner, Chester William  
 Gittner, Ralph Edward  
 Gittner, David Patrick  
 Gittner, Daniel Earl  
 Gittner, Helen Teresa  
 Gittner, Margaret Stadden  
 Gittner, Jessica  
 Gittner, Paul  
 Gittner, Joe Kerr  
 Gittner, Glen A.  
 Gittner, Constance M.  
 Gittner, Morgan Ma-M.  
 Gittner, Stanley Ormand  
 Giltbreath, Earl R.

Gilbreth, Lucille Kingsley  
 Gilfix, Louis  
 Gill, Charles Edward  
 Gill, Ruthana Hamilton  
 Gill, Sam C., Jr.  
 Gillam, Francis Carlton  
 Gilliam, Frank Peter  
 Gillihan, Edna Lee  
 Gilmore, Vincent Gerald  
 Gilroy, Edward Lewis  
 Gladstone, Arthur Abraham  
 Glaser, Elmer Eliot  
 Glassman, Herbert Haskell  
 Glenn, Leo Clarence  
 Glock, Samuel Arthur  
 Glickman, Isidore J.  
 Glicklen, Harold Irving  
 Gliese, Arthur Bryant  
 Glout, F. Marie  
 Glynn, Ernest B.  
 Gubler, John Edward  
 Gubner, Harry Thomas  
 Gubner, Bernard Preston  
 Gubner, Sara Isolyer  
 Gubner, Melva Grace  
 Gubrey, Elizabeth Marlay  
 Gubrey, Michael Francis  
 Gubrey, Paul Joseph  
 Gubner, Roy Nelson  
 Goldbaum, Abraham  
 Goldberg, Gave  
 Goldberg, James  
 Goldberry, Lawrence L.  
 Goldblatt, Helene  
 Goldblatt, Bernard  
 Goldblatt, Nancy  
 Goldner, Simon  
 Goldschlager, Gustave  
 Goldstein, Walter Jordan  
 Goldstein, Eli  
 Gold, Frank R.  
 Gold, Abraham  
 Goldstein, John Joseph  
 Gold, Marshall Henry  
 Gold, Edward Russell  
 Goodman, Stanley  
 Gorah, Moss, Murad  
 Goroff, Rhea  
 Gordon, Daniel Israel  
 Gordon, Isaac Howell  
 Gordon, Nathan  
 Gorenstein, Rose L.  
 Gornitzky, Raymond  
 Gossell, William Bernard  
 Gould, James  
 Gould, Lucille F.  
 Govan, Frances Joseph  
 Grabowski, Edwin F.  
 Graen, Ruth M.  
 Graeg, Allen Ronald  
 Graesson, Edward Freeman  
 Graham, Walter A.  
 Grammer, Samuel A.  
 Grammett, Marjorie Keller  
 Grasty, Isobel  
 Granger, Oscar H.  
 Gray, Claude Miller  
 Gray, Jack Trounbley  
 Gray, Joseph Edward  
 Graybill, Lewis Conrad, Jr.  
 Green, A. Ruth  
 Green, Charles Perry  
 Green, Gerald

Green, Milton  
 Green, Morton Arnold  
 Greenberg, Albert  
 Greenberg, Annette  
 Greenberg, Bernard F.  
 Green, Anne Barbara  
 Greenberg, Charles Robert, Jr.  
 Greenberg, Paul Morton  
 Greenwald, Myron  
 Greenwald, Sol  
 Greenway, Nell  
 Grey, John LeRoy  
 Grey, John  
 Griffin, Otto Bradern  
 Griffin, Zella Bennett  
 Griffin, Charles Walker  
 Grigg, Katherine Padgett  
 Grimes, Earl LeRoy  
 Grimes, Edward George  
 Gruber, Norman  
 Grunwell, Alfred Marshall  
 Gross, Emil Blumfeld  
 Gross, Louis  
 Grossman, Charles F.  
 Group, Seymour  
 Grubb, Samuel Parry  
 Grunstein, Morton  
 Grady, Joseph Ellis  
 Gruber, Isaac Heller Reed  
 Grunstein, Melvin Morris  
 Gross, Edward  
 Gross, Irving Leonard  
 Gross, Philip  
 Grunstein, Robert Fulton  
 Guthrie, Norman

## H

Haas, Mack Vincent  
 Haber, Herbert H.  
 Hack, Louis William  
 Hack, Gary Peter  
 Hager, Carl Vernon  
 Hager, Jean Dolores  
 Hagels, Louis Henry  
 Hake, William Marshall  
 Haiseld, Randolph Miller  
 Hale, Roger Curtis  
 Hale, William Thomas  
 Hall, Elizabeth Chubburn  
 Hall, Maxine  
 Hall, Richard Randolph  
 Hall, Vernon Randolph  
 Hall, William D.  
 Haller, Louis Thomas  
 Haller, Martin R.  
 Haller, Bernard Francis  
 Halpert, Benjamin  
 Halpern, Howard Anthony  
 Halpern, John Newman  
 Hammer, Irving T.  
 Hamman, Albert Robert  
 Hamman, William F.  
 Hampton, George Robert  
 Hampton, Ralph David  
 Hamaker, Joseph  
 Hamel, Charles Clark  
 Hamel, Eugene Paul  
 Hamer, Donald Joseph  
 Hamer, Charles Martin  
 Hamman, Felix Nathan  
 Hamer, William Herman  
 Hamer, Edward Arnold  
 Hardin, Douglas Schuyler

Hardin, Mary Helen  
 Harding, Harold Franklin  
 Hardin, Leonard  
 Harter, Mark T. Apple  
 Hart, Carl Frederick  
 Hatcher, Evelyn T.  
 Hattner, A. Van Plaine  
 Hattner, Charles Leonard  
 Hatcher, Douglas Edmund  
 Hatcher, Douglas F.  
 Hattner, Robert Edward  
 Hattner, James Gerard  
 Hattner, Israel  
 Hattner, John H. Jr.  
 Hattner, Mark Pickett  
 Hattner, Morris  
 Hattner, Thomas Howard, Jr.  
 Hattner, Truman Lewis  
 Hattner, Wendell Vincent  
 Hattner, Frank E.  
 Hattner, James Henry  
 Hattner, Lewis Thomas  
 Hattner, Margaret Christine  
 Hattner, Har. L. Hattner  
 Hart, Charles Arver  
 Hart, James Victor  
 Hart, James William  
 Hart, R. Richard  
 Hartman, Ruth Cloves  
 Hartwell, Herschell Howard  
 Harvey, Harry Dick  
 Harvey, Walter Sheldon  
 Hawthorn, Helen Louise  
 Hawkins, Linda Ferrell  
 Hawkins, George Selvester  
 Hawn, Harold  
 Hawk, Elsie Levern  
 Hawthorn, Betty Patricia  
 Hawn, Doris Palmer  
 Hawthorn, Arthur  
 Hawthorn, Edwin Oliver  
 Hawthorn, Harvey Hager  
 Hawthorn, Maurice Richard  
 Hawley, Walter Benson  
 Hawthorne, William Blackwell  
 Hayes, Linn C.  
 Hayes, Nor. M. Arvelly  
 Hayes, William L.  
 Hayes, Mary Farrow  
 Hawes, James Webster  
 Hays, Harry R.  
 Hays, Mary Frank  
 Hays, Katty  
 Hays, Linda L.  
 Hekking, Ernest Donald  
 Heist, Jerome Jack  
 Heister, Lucile Paul  
 Heist, Hyman Norman  
 Heist, Harold Kenneth  
 Heist, George William  
 Heist, Melva Christine  
 Heist, Susan Louise  
 Heist, LeRoy Ernest  
 Heist, Sidney Jules  
 Heist, G. F.  
 Heist, Harry Gray  
 Heist, Evelyn Raymond  
 Heister, Albert Harrison  
 Heister, T. Mark  
 Heister, Mark M. Gerald  
 Heister, Edna Dora  
 Hendrickson, Carl Norman  
 Hendrickson, Robert Earl  
 Henshaw, Carl Alexander  
 Henshaw, Johnson Frederick  
 Henshaw, Lanny Donald  
 Hershheimer, Albert John  
 Hershman, Donald Floyd  
 Hering, Dorothy Eleanor  
 Heron, O. Philip  
 Hermon, Ben  
 Hermon, Harold  
 Hermon, Paul Allan  
 Hermon, William R.  
 Heron, Jack  
 Heron, Morris Aaron  
 Heron, Henry W.  
 Hester, Jeanette  
 Hester, Sarah M.  
 Hewitt, Louis Milton  
 Heyden, Francis Thomas  
 Heyden, Elizabeth Crawford  
 Heyden, Linda  
 Heyden, Samuel  
 Hicks, H. Nathan  
 Hicks, Robert Waverly  
 Hiett, Russell Henry  
 Hight, Dorothy Bernice  
 Hight, Paul Stewart  
 Hight, David Leroy  
 Hight, L. Alexander Nelson  
 Hight, Arthur  
 Hiler, Norman  
 Hill, David Cooper  
 Hill, Dan Leroy  
 Hill, Frank I.  
 Hill, Tim May  
 Hill, Martin E.  
 Hill, Allen Raymond  
 Hill, Roy H.  
 Hill, Robert Greene  
 Hill, Wayne Edward  
 Hinson, Albert Gaudier  
 Hinson, Raymond Washington  
 Hinz, Louise Elizabeth  
 Hirsch, Arthur Ernest  
 Hirsch, Robert Stanton  
 Hixon, Jay Howard, Jr.  
 Hixson, Stephen Andrew  
 Hixson, Charles George  
 Hixson, Fred  
 Hixson, George Lawrence  
 Hixson, William Glenna  
 Hixson, Harold Edward  
 Hixson, Clarence William  
 Hixson, Eva Marie  
 Hixson, Barbara  
 Hixson, Donald Benrose  
 Hixson, Francis Burrall  
 Hixson, Linn James  
 Hixson, Robert E.  
 Hixson, Henry  
 Hixson, Jack E.  
 Hixson, Edward John  
 Hixson, Mary Patricia  
 Hixson, Richard Dudley  
 Hixson, George Owen  
 Hixson, James  
 Hixson, Robert Earl  
 Hixson, Helen Louise  
 Hixson, Charles Henry  
 Hixson, Melva Augusta  
 Hixson, Helen Velmaever  
 Hixson, Roy Russell  
 Holy, Frank Mathias  
 Holmacher, Russell Alvah



Homiak, John  
 Honeycutt, Bruner Truett  
 Hong, Edward  
 Honsaker, Robert Paul  
 Hooper, Daniel  
 Hoover, John Irvin  
 Hoover, Mary H.  
 Hoover, Roger E.  
 Hopkins, Robert Washburn  
 Hopper, H. Pearson  
 Horn, Albert Mathias  
 Horn, Edward Paul  
 Horn, Ray Martin, Jr.  
 Horneland, Olaf M.  
 Hornstein, Jacob David  
 Horowitz, Alex.  
 Horton, Cyril Franklin  
 Houchins, Cecil Allen  
 Houghtelin, Mary Alice  
 Houghton, Francis Eugene  
 How, Lillian A.  
 Howe, George  
 Howe, Ottie Ella  
 Horwitz, Manuel Gilbert  
 Horwitz, Sol Herbert  
 Houck, Charles William  
 Howard, David Stewart, Jr.  
 Howard, Faye M.  
 Howard, Thomas P.  
 Hoyle, Roy C.  
 Huber, John Yateman III  
 Huffaker, Carl Lea  
 Hughes, M. Yvonne  
 Huggins, Nettielee  
 Hulser, Frank Yavier  
 Humphrey, Howard Convers  
 Hunsberger, Martin Leidy  
 Hunter, Charlotte P.  
 Hunter, John Joseph  
 Hunter, Florence Miller  
 Huntington, O. LeRoy  
 Hunton, Richard Edwin  
 Hupper, Ted  
 Hurley, Carl Robert  
 Hurst, Tim Thurston  
 Hutchins, Stonewall I.  
 Hutson, Mildred Bernice  
 Hyland, Daniel Dwyer  
 Hymowitz, Florence Barbara

## I

Iadarola, Joseph  
 Iaff, Robert W.  
 Indritz, Phineas  
 Inglis, Andrew Franklin  
 Ingoldsby, James L.  
 Ingraham, Mark Whittemore  
 Irby, William Cannon  
 Irick, John  
 Irick, William Henry  
 Irwin, Clarence H.  
 Isaacs, Charles Henry  
 Isaacson, Samuel Jordan  
 Isenhardt, Violet Luke  
 Iskowitz, Fred  
 Isley, Cary Tolmase  
 Israel, Isaac Samuel  
 Ivanick, George  
 Iverson, John Roger

## J

Jackson, Charles H.  
 Jackson, Charles P.

Jackson, Duane J.  
 Jackson, Louise May  
 Jackson, Margaret  
 Jacobs, George William  
 Jacobs, Harry Victor  
 Jacobson, Sidney S.  
 Jacobson, Bela Bernard  
 Jacoby, Robert  
 Jaffe, Louis S.  
 Jallite, Edgar Worrall  
 Jamarik, Ludmila  
 Jameson, Helen Golder  
 Jamison, Alva Harris  
 James, Constantine John  
 Jansen, Wilbur Raber  
 Jarmak, Edward G.  
 Jarrard, Edna Velma  
 Jarratt, Bula Melvine  
 Jarvis, Everett Austin  
 Jasik, Henry  
 Jenkins, Otis Everett  
 Jennings, Lonnie Guy  
 Jensen, Henry Edward  
 Jessup, Walter I.  
 Jewell, Lige Sherman  
 Jirsch, Francis William  
 Johnson, Agnes Gudrun  
 Johnson, Bernice I.  
 Johnson, Bert A.  
 Johnson, Carl Erving  
 Johnson, Cole Esker  
 Johnson, Duane Bernell  
 Johnson, Elizabeth Isaacs  
 Johnson, Eugene Hubert  
 Johnson, Everett Carl  
 Johnson, Jesse L.  
 Johnson, Louis  
 Johnson, Marvin Ronald  
 Johnson, Raymond S.  
 Johnson, Richard Schofield  
 Johnson, Robert I.  
 Johnson, Sidney Powell  
 Johnson, Sven L.  
 Johnston, Francis Newlands  
 Johnston, James A.  
 Johnstone, Elisabeth  
 Jones, Bertram Bacon  
 Jones, Bruce  
 Jones, David Powell  
 Jones, Edna Florence  
 Jones, Karl William  
 Jones, Kenneth William  
 Jones, Lloyd Bachman  
 Jones, Mable J.  
 Jones, Nettie Young  
 Jones, Paul F.  
 Jones, Lawrence George  
 Jones, Milton Edward  
 Jordan, Carl  
 Judd, Madeline  
 Judas, John Joseph  
 Judy, D. Gollie  
 Justin, Selby

## K

Kaech, Monica Helena  
 Kaiman, Milton  
 Kalavski, Paul Z.  
 Kalenbach, K. Hubert  
 Kalenbach, Melvin Gerat  
 Kalenbach, Melvin Gerat  
 Kalenbach, Melvin Gerat  
 Kalenbach, Melvin Gerat  
 Kalenbach, Melvin Gerat

Kamphaus, Ethel Mae  
 Kamphorn, Edwin Albert  
 Kan, George Stanley  
 Kane, Thomas Edward  
 Kaplan, Ida  
 Kaplan, Julius  
 Karcher, Ernest Richard  
 Karr, Joseph A.  
 Kaslowitz, Sidney  
 Kassel, Jerome Marvin  
 Katsura, Helen Esther  
 Katz, Edna Betty  
 Katz, Seymour  
 Katzenberg, Edgar Marvin  
 Katzman, Herman Julius  
 Kaufman, Edna G.  
 Kaufman, Frances  
 Kaufman, Berice  
 Kaufman, Daniel Lawrence  
 Kay, Bennett  
 Kay, Ruth Elizabeth  
 Keating, Edwin Francis  
 Keating, James Joseph  
 Kee, Wilson W.  
 Keegan, Kenneth Bernard  
 Keeler, Maria  
 Keenan, Margaret Kathrine  
 Kepp, Philip Richard  
 Keller, Charles L.  
 Kellert, Martin  
 Kelley, Edna S.  
 Kelley, Ivan Scott  
 Kellogg, Anna  
 Kellogg, Rose  
 Kelly, Thomas F.  
 Kelly, Warren Cindy  
 Kemp, Wilbur Davis  
 Kempfs, Howard Francis  
 Kempfs, Frank Joseph  
 Kennedy, John Gregory  
 Kennedy, Paul Edwin  
 Kennedy, Frances Xavier  
 Kennedy, John Joseph  
 Kennedy, Maude Margaret  
 Kennon, Robert Stess  
 Kern, Peter  
 Kernbaum, Matthew Roman  
 Kercher, Kenneth S.  
 Kershner, James Mark  
 Kessler, Selil  
 Kessler, Ida Sara  
 Keshan, Hanes L.  
 Kess, Billy Mark  
 Kessler, Charles Joseph  
 Kessler, Frederick Thomas  
 Kess, Bert and Charles  
 Kessler, Lowell Barry  
 Kessler, William Arthur  
 Kessler, George A.  
 Kessler, John Michael  
 Kettle, Lester Willis  
 Kett, Frank Henry  
 Kett, William Louis  
 Kinsley, Louise  
 Kinsley, Margaret D.  
 Kinney, Ray Donald  
 Kinney, Robert Thornton  
 Kinsella, George T.  
 Kinsella, James Francis  
 Kinsey, Ronald Charles  
 Kinsman, Robert Gordon  
 Kirkpatrick, Bernard Joseph  
 Kisch, Jack

Kirschenbaum, Edna  
 Kirschner, Harold  
 Kirstein, Myron  
 Klass, David  
 Klein, Adam Alfred  
 Klein, E. Melvin  
 Klein, Joseph N.  
 Kleinst, Ruth Steinhagen  
 Klimakewicz, Paul Robert  
 Kline, Frank Homer  
 Kline, Margaret Menefee  
 Klinkenberg, Harold Randolph  
 Kline, Bernard Arthur  
 Kline, Arthur William  
 Knapp, DeFord Lucille  
 Knapp, Jack William  
 Knicker, Louis Gilbert  
 Knicker, Gertrude  
 Knicker, Mary  
 Knicker, Harry C.  
 Knicker, Jerome I.  
 Knicker, Gertrude G.  
 Knicker, Martin R.  
 Knish, Andrew Christian  
 Knipp, Colguitt Newell  
 Knize, Esther E.  
 Knize, Stanley  
 Knizitsky, John  
 Knoble, Gerald Marvin  
 Knob, Marguerite May  
 Knob, Emanuel  
 Knorr, Samuel  
 Knorr, Stephen  
 Knorr, Arthur Henry  
 Knorblath, Leo  
 Kosack, Albert Sylvester  
 Kostolefsky, Samuel  
 Kotter, Charles  
 Kounts, Stanley Jennings  
 Koutelas, Deana  
 Koutel, Karl M.  
 Koutel, Thomas Charles  
 Koutel, Paul Edward  
 Koutel, Harold Anne  
 Koutel, Martin Wolfe  
 Koutel, Meyer  
 Koutel, Peter  
 Koutel, David Louis  
 Koutel, Jerome I.  
 Koutel, Edward James  
 Koutel, Charles David  
 Koutel, Katherine Pearl  
 Koutel, Seymour  
 Koutel, William  
 Koutel, Nathan  
 Koutel, Andrew  
 Koutel, Nancy Harriet  
 Koutel, Jane Marie  
 Koutel, Mary  
 Koutel, Daniel Frederick Leon  
 Koutel, Alexander Paul  
 Koutel, Louis  
 Koutel, Bernard  
 Koutel, Bernard  
 Koutel, David  
 Koutel, Seymour Matthew  
 Koutel, Russell Howard

## L

LaBarge, Alfred Francis  
 Labadie, Louis  
 Labey, Helen Rosalee  
 Lachensbach, Arthur Herald

- Laird, Virginia Tinley  
 Lamb, Frederick Scott  
 Lamb, Ralph  
 Lamkey, F. Randolph  
 Lancken, James Cecil  
 LaMoore, James Francis  
 Landall, Abel E.  
 Landrey, Lee Raymond  
 Lane, Franklin LeRoy  
 Lang, Wayne Henry  
 Langhoffer, Leo Henry  
 Langhorne, Donald Thomas  
 Langley, Barbara Anne  
 Langmark, Peter H.  
 Langston, Allen Benson  
 Lantz, Ivan Charles  
 Larmet, John W.  
 Larson, Evelyn Blanche  
 Larson, Lawrence Merrill  
 Larson, Russell Philip  
 LaSalle, Joseph Israel  
 Laska, Albert John  
 Latham, Thomas Mortimer  
 Lathenstone, Raymond Paul  
 Laudel, James Otto  
 Laura, Philip  
 Lawler, William John  
 Lawrence, Arnold  
 Laws, Mary Louise  
 Lawson, Charles Thomas  
 Lawry, Robert D.  
 Lea, Frank Emanuel  
 Leavitt, Helen C.  
 Leckie, Patricia Marie  
 Lee, Howard James  
 Lee, Marie Helen  
 Leefler, Norman Harold  
 Leeburger, Alan Bader  
 Leeter, Norman Harold  
 Lefsky, Sidney  
 Lehman, Anna  
 Leberman, William  
 Leble, Irvin J.  
 Leckwith, Hymie  
 Leckwith, Zvi Samuel  
 Lentz, Ouida Bessie  
 Leonard, G. Hamilton  
 Leonard, Ralph Maxwell  
 Leonard, Paul Samuel  
 Leopold, Theodore  
 Less, William F.  
 Lessowsky, Louis J.  
 Lester, Frank John  
 Lester, Garland Lee  
 Letterman, John Barry  
 LeVan, Esther Mary  
 Levin, Isidor Herman  
 Levine, Albert  
 Levine, Alex  
 Levine, Boris  
 Levine, David Bear  
 Levine, Gerald  
 Levine, Michael R.  
 Levine, Samuel Joseph  
 Levine, William  
 Levinsky, Murray  
 Levitz, Nelson N.  
 Levitz, Herman R.  
 Levy, Arthur Edwin  
 Levy, D. Morton  
 Levy, Joseph Edward  
 Levy, Joel V.  
 Levy, Nathan  
 Lewis, Odling Constance  
 Lewis, Joseph M.  
 Libby, Paul  
 Lieberman, Israel Morris  
 Liddard, Mary M.  
 Liebertfeld, Lawrence  
 Liekweg, Charles B., Jr.  
 Lind, Arthur R.  
 Lindberg, Ernest Harry  
 Lindstrom, Lorenz Richard  
 Lintz, Joseph, Jr.  
 Lintz, Otto Joseph  
 Lipsky, Bernard Abraham  
 Lipp, James P.  
 Lipowitz, Sol  
 Lishansky, Fred  
 Liss, Abe  
 Liss, Morris  
 Litt, Jerome Zachary  
 Littell, Fred  
 Little, Fred Wellington  
 Little, Henry Cassaway  
 Lutzenberger, Harryushman  
 Livetsky, Russell  
 Livshan, Frieda Esther  
 Livzon, Paul Fritjof  
 Lomas, Mary Adan  
 Lohse, John Mueller  
 London, Harry  
 Lotat, Grace Horton  
 Lotze, James A.  
 Lotze, John Stephen  
 Lony, Louis  
 Long, Lennie  
 Longacre, Earl H.  
 Longacker, Edna M.  
 Long, Nicholas Richard  
 Lopez, Francis Xavier  
 Lopez, Isidore  
 Lorne, Lawrence K.  
 Losey, Raymond Robert  
 Love, Laura Victoria  
 Loveberg, Arnold Gregory, Jr.  
 Lovelace, Robert Harry  
 Lovett, Margaret Wladimir  
 Lovett, David Bradford, Jr.  
 Lowery, Louis Otis  
 Lowry, Elizabeth Jean  
 Lubart, Jesse Jeannette  
 Lubin, Jack  
 Lubin, Frank Frederick  
 Lupton, Thomas Eugene  
 Luck, Robert Louis  
 Lueker, Lester Martin  
 Luttrell, Lee Ward  
 Lutz, Maxine  
 Lutzky, Joseph  
 Lyden, Royce Mary  
 Lytle, Charles Holmes  
 Lytle, John A. Nelson, Jr.  
 Lyness, Ray Lee  
 Lynch, A. Dwight  
 Lynch, Maurice Joseph  
 Lytle, Thomas Montgomery  
 Lyness, Ralph F.

M

- MacDonald, Harriet  
 MacDonald, Russell Degen  
 Mac, Charles H.  
 MacFadden, Jack Harold  
 MacFalls, Fred Vassie  
 Machlin, Irving

Mack, Victor Anthony  
 MacNed, James Grace  
 Macos, Elizabeth Stewart  
 MacPherson, Donald Hugh  
 Madans, Jerome Lawrence  
 Madzelan, Joseph  
 Mager, Stanley  
 Magad, George Peter  
 Magrader, Frank Cecil  
 Maguire, Bernard James  
 Maguire, John Frank, Jr.  
 Mahman, Frederick Henry  
 Mahoney, John S.  
 Mahony, George Henry  
 Maki, Kacoris Nestor  
 Makinart, Albert  
 Makin, Donald C.  
 Makin, Florence M.  
 Makine, John Lawrence  
 Makin, Vincent Thomas  
 Mankin, Thomas Sam  
 Mares, Joseph Terry  
 Marandor, Albert  
 Maras, Myrtle Elizabeth  
 Mark, John  
 Mark, Mary Ann  
 Mark, William Wilson  
 Markham, Frank Paul  
 Markman, Henry  
 Markman, Joseph James  
 Markman, Herbert  
 Markman, Paul Josephlyn  
 Mark, Evelyn Marie  
 Markman, Michael  
 Markman, Michael  
 Markman, Louis  
 Markman, William Perry  
 Markman, Arthur  
 Markman, Thomas McNeely  
 Marks, John Edward  
 Mark, Martin  
 March, Mary Ann Marie  
 March, Joseph Anthony  
 March, Joseph William  
 March, George Everett  
 March, John E.  
 March, Joseph Chandler  
 March, Henry Charles F.  
 March, David Thomas  
 Martin, George Joseph  
 Martin, Helen A.  
 Martin, John Dee  
 Martin, Paul Joseph  
 Martin, Robert Emmett  
 Martin, William Arnold  
 Martin, William Howard  
 Martin, Joseph A.  
 Martin, Henry  
 Martin, Robert Cummings  
 Martin, Arnold Marcus  
 Martin, Albert M'Lean  
 Martin, Louis Max  
 Martin, Robert George  
 Martin, Arthur Marquette  
 Martin, Paul Henry  
 Martin, William Carroll  
 Martin, Lena L.  
 Martick, Robert Charles  
 Martice, Howard Thomas  
 Martie, Raymond  
 Marton, Elmer Leroy  
 Marton, James Richard  
 Mays, Richard Landrum  
 May, Norma  
 McAule, Francis Edward  
 McAule, Pauline Elizabeth  
 McAule, Arthur Robert  
 McCarty, Anne Lorraine  
 McCash, Anna B.  
 McCaul, William Leroy  
 McCann, Robert Lewis  
 McCann, Anne Lorraine  
 McCann, Louise Staine  
 McCarty, Everett Clyde  
 McCaskey, Curtis Victor, Jr.  
 McCand, William Walter  
 McCann, Stephen Alfred  
 McCann, William C.  
 McCaskle, James S.  
 McCaskey, George Robertson  
 McCaskey, Myrtle Cax  
 McCaskey, James Walter  
 McCaskey, Klara Louise  
 McDermott, Martin Francis, Jr.  
 McDermott, James Joseph  
 McDowell, William Emerson  
 McDowell, John Bennett  
 McDowell, Robert Henry  
 McDowell, Charles Leonard  
 McDowell, George Carter  
 McDowell, Donald John  
 McDowell, Joseph Cade  
 McDowell, Riley  
 McDowell, Curtis Elmer  
 McGee, John F.  
 McGee, John F.  
 McGee, Lawrence Peter  
 McGee, Donald Michael  
 McGee, Kathleen Clare  
 McGee, Martin James  
 McGee, Fred Vernon  
 McGee, John Francis  
 McGee, Joseph Paul  
 McGee, William Felix  
 McGee, Ruth Gay  
 McGee, Margaret Ruth  
 McGee, James Reid  
 McKay, Viola L.  
 McKay, Ray Augustus  
 McKee, Mary Susan  
 McKee, Thomas M'Call  
 McKee, Joseph Lee  
 McKee, Robert Wilson  
 McKee, Thomas W.  
 McKee, Thomas Oliver  
 McKee, John M. Clayton  
 McKee, Mary Ann Newell, Jr.  
 McKee, Anne M.  
 McKee, Robert Emmett  
 McKee, David  
 McKee, D. Virginia  
 McKee, Dorothy Ewing  
 McKee, John  
 McKee, David Sabin  
 McKee, Samuel Lewis H.  
 McKee, Fred William  
 McKee, Charles H.  
 McKee, Thomas Carter  
 McKee, Harry  
 McKee, Edward Paulson  
 McKee, Susan Dwight  
 McKee, Daniel A.  
 McKee, Joseph Tull  
 McKee, John Madison  
 McKee, John Benton  
 Mehl, Charlotte Ivor



- Mehl, Evelyn Lapham  
 Mehlfelt, I. June  
 Meems, Mary Stetson  
 Meisler, Anthony Rudolph  
 Meisel, Benjamin  
 Melby, Philip Olous  
 Melling, Lucille Elizabeth  
 Melville, John Edward  
 Mendelsohn, Gilbert Robert  
 Mendelson, Harry  
 Menditch, Barney  
 Menely, Robert Charles  
 Menkin, Jeanne  
 Mensh, Marcus David  
 Merchant, Walton Lee  
 Mercier, John Reeder  
 Meredith, M. Theresa  
 Merrilat, Robert Lee  
 Merkowery, Nancy Mary  
 Meroz, Alvin Frisco  
 Merrill, Wallace Edwin  
 Merrill, Warren Howard  
 Merson, Ida Sylvia  
 Merson, Sigmund  
 Mesener, Carroll Charles  
 Mesher, Samuel  
 Mess, Margaret Elizabeth  
 Mess, Melinda Mary  
 Messik, Irving  
 Messiry, Basil  
 Messler, Arthur Marion  
 Metalitz, Stanley  
 Mettelt, Robert Joseph  
 Metz, John Jacob  
 Metzkehar, Paul Norman  
 Mewaldt, Leonard Richard  
 Meyer, Richard E.  
 Meyers, Benjamin  
 Michael, Lewis E.  
 Michaels, William Harry  
 Michaelson, Solomon M.  
 Michalek, Raymond Edward  
 Michel, Robert Edward  
 Middlesworth, Naomi Faye  
 Middleton, Edwin Randolph  
 Middleton, Frederic Andrew  
 Mietus, Norbert John  
 Miguel, Geronimo  
 Milans, Everett D.  
 Miller, Alex Henry  
 Miller, Alice Emily  
 Miller, Audrey Newman  
 Miller, Eunice  
 Miller, Harry Thomas  
 Miller, Herman Eugene  
 Miller, Herman P.  
 Miller, John Charles  
 Miller, John Jacob  
 Miller, John Wall  
 Miller, Leonard Charles  
 Miller, Marlin LeRoy  
 Miller, Mary Ida  
 Miller, Milton  
 Miller, Paul  
 Miller, Perry Brackett  
 Miller, Robert Anderson III  
 Miller, Samuel J.  
 Miller, Stella M.  
 Milford, William Harold  
 Milmet, Joseph Vlen  
 Millner, Elliott  
 Milone, Dominic Edward  
 Mink, Elizabeth Mary Helen  
 Minker, George Leimbach  
 Minthorn, Samuel Peter  
 Mirage, Faris Amin  
 Mirage, Gloria LeBrun  
 Mirage, LeBrun Maybelle  
 Misoski, Frances A.  
 Misoski, Vincent Theodore  
 Mislove, Rhoda Dorothy  
 Misuraca, Charles Albert  
 Mitchell, Allen Stuart  
 Mixon, Naomi Trowell  
 Moeller, Edward Ott  
 Moglen, Norman  
 Mohl, Edgar Vincent  
 Mohler, Marvin Francis  
 Molitieri, Frank Anthony  
 Moms, Bessie E.  
 Monahan, Harold Joseph  
 Monday, Frank Edward  
 Monis, Frances  
 Montgomery, Arthur Henry  
 Montgomery, Eddith Ruth  
 Montgomery, John Francis  
 Moody, Otis Nathan  
 Mooney, Howard Francis  
 Mooney, Robert Patrick  
 Moore, Eric Ellis  
 Moore, Harry Hill  
 Moore, James Fuery  
 Moore, Sadie E.  
 Moore, William Hoyt  
 Moorehead, George James  
 Moran, Jame Sterling  
 Morgan, Daniel Theodor  
 Morgan, Ethel Wiggins  
 Morgan, George Seymour  
 Morgan, William C., Jr.  
 Morley, Thomas Joseph  
 Morrill, Frank Forrest  
 Morris, Bessie Fletcher  
 Morris, Don Charles  
 Morris, Joe M.  
 Morris, Lois  
 Morrison, Sarah W.  
 Morrow, Nella Myrtle  
 Morsch, Louis John  
 Morse, Murray Edward  
 Morton, Tommylu  
 Moseley, Martine M.  
 Moser, Robert Wayne  
 Moses, Paul Thomas  
 Mosier, Edwin Leeds  
 Moskowitz, Joseph  
 Moss, Jerome F.  
 Mostow, Wolfe  
 Mostowsky, Aaron  
 Mothershead, James O.  
 Mowers, Walter F.  
 Moxham, Robert Morgan  
 Moyer, Paul R.  
 Mozur, John Paul  
 Mucci, Michael  
 Mucciola, Clotilda  
 Mucha, Theodore Alexander  
 Mueller, Albert Frederick  
 Mueller, Earl George  
 Mulieri, Vincent E.  
 Muller, Hans  
 Mullins, Elwood Hatcher  
 Munden, Violet Estella  
 Mundy, Thomas James  
 Murphy, James Paul  
 Murphy, John Joseph  
 Murphy, Luther Fred  
 Murphy, Viola Belle

Murray, Charles  
Murray, James Justus  
Murray, Mary J.  
Murrill, Lee  
Murto, Harry C.  
Mushinsky, Albert  
Myer, Ruth Estelle  
Myers, Dorothy E.  
Myers, Joyce Elizabeth  
Myers, Marian Pilton  
Myers, Robert Frederick

## N

Nabring, Frank Charles  
Naltzger, Merrill R.  
Nagley, Forrest Robert  
Nakowitz, John  
Nash, Lowell Gene  
Naudizius, William George  
Naughton, John A., Jr.  
Nawrocki, Peter Stanley  
Nedved, Elizabeth Kimball  
Negus, Mildred Emma  
Nelms, C. Virginia  
Nelson, Merrill A.  
Nelson, Paul Alfred  
Nelson, Wilhelmina Maria  
Nemir, Fred Robert  
Nesbitt, William Lysle  
Nesen, Ruth  
Neslar, Leon S.  
Neuhaus, Lois Elizabeth  
Newcomb, Warren Irving  
Newell, Francis E.  
Newhouse, Henry  
Newlon, Donahy F.  
Newman, Arthur Hempstead  
Newman, Ernest James  
Newson, Vanda Hardin  
Neyens, Robert Peter  
Nichols, John T.  
Nicholson, Charles Warren  
Niederlehner, Leonard  
Niemeyer, Edward Henry  
Nissenbaum, Harold  
Nobel, John Phelps  
Nodelman, Irving Meyer  
Noel, Robert William  
Noland, Genevieve Dorothy  
Nose, Henry Rutland, Jr.  
Noppe, Jerome Louis  
Norris, Louise George  
Norris, Eugene Wesley  
North, Harvey Steele  
Northrup, George Roger  
Norton, Francis William  
Norton, Ivy Lillian  
Noveck, Yvonne Isonson  
Nowak, Ralph J.  
Nowak, Nora  
Nowin, E. Lio John  
Nowin, Florence  
Nowsham, Sara Rudley  
Nowman, George Leight  
Nydot, F. Seymour

## O

Oakes, Donald Arthur  
Oakes, Alice D.  
Oakley, Paul DeWitt  
Oats, Ethel Marie  
Ober, Marguerite Frances  
Oberly, John Lindsay  
Obertone, Raymond Carl

O'Connell, John Charles  
O'Donnell, Edward John  
Oehlberg, Dora  
Oehmann, Andrew LeRoy  
Oermann, Martin H.  
Offenbacher, Hurley Franklin  
Ogle, Ralph Edward  
Ohlheiser, Carlton Edward  
Ohringer, Milton  
Ojala, Leslie William  
Oken, Max  
Okstulski, John Anthony  
Okun, John I.  
Oldfather, Mary E.  
Olive, Milton  
Oliver, Edward James  
Olivia, Donald Joseph  
Olson, Florence  
Olofson, Florence S.  
Olsen, Robert A.  
Olsen, Samuel John  
Oncken, William, Jr.  
O'Neil, Burke Leroy  
O'Neil, George Thomas  
O'Neil, Jane  
Olney, Marvin Oliver  
Oman, George M.  
O'Malley, Henry Solis  
Ondorff, Mary Ann McCann  
Ondorff, Roy Lee  
Osenack, Mary  
Oskowsky, Hyman  
Osofsky, Abe  
Ossau, Morris  
Ost, Arthur Jay  
Ostrom, Kurre Wilhelm  
Ott, Katherine Vernon  
Ottinger, Paul William  
Ouda, Albert, Jr.  
Overberg, Cora Hedwig  
Overman, John Paul  
Owen, William Everett  
Owens, James Herbert  
Owens, Thomas Walred  
Ozier, Kenneth H.

## P

Pace, Walter Richard  
Pack, Martha P.  
Packard, Ronald Michael  
Padgugalsky, Walter Venskus  
Padgett, Robert Taylor  
Page, Katherine S.  
Paginas, George Gus  
Painter, David Miller  
Palm, Joseph Frank  
Palm, Richard C.  
Palmer, Stanley Roth  
Palmerton, Leland Duran  
Palmer, John Lisle  
Pamell, Robert  
Pape, Iris M.  
Papp, Alexander Eugene  
Pardo, Jack  
Parker, Mary Virginia  
Parker, Modora Louise  
Parker, Ralph O.  
Parnell, Ralph William  
Parsons, Donald Johnson  
Parsons, Francis Alan  
Parsons, John M.  
Parvis, Richard John  
Pascual, Innocente Barlan  
Paterson, Elwin Laurence

- Pates, John Richard, Jr.  
 Paterson, Wesley Frederic  
 Patrowski, Alexander John  
 Patterson, Charles K.  
 Patton, Joseph William  
 Patton, William Everett  
 Paul, Eleanor Wilson  
 Pavonis, Joseph A.  
 Payne, Arthur William  
 Peak, Helen Elizabeth  
 Peale, Braxton LeRoy  
 Peery, Benjamin Fashing  
 Peizer, Edward Henry  
 Pense, Harvey Johnson  
 Pennard, Mary James  
 Peopple, Leonard Rae  
 Pepper, Edmund Garrett  
 Perkins, Ruth L.  
 Perlmutter, Jack  
 Perlmutter, Jeanne Herbert  
 Perlmutter, Samuel Matthew  
 Perkinson, Belle A.  
 Periswong, A. Maxwell  
 Perilla, Vera Catherine  
 Peris, Louis  
 Person, Russell Vernon  
 Peters, Margaret Elizabeth  
 Petros, Joseph Louis  
 Petru, Matthew John  
 Petrucci, Carlos Albert  
 Petruska, John Joseph  
 Peterson, Martin Joseph  
 Peterson, Edward Jacob  
 Peterson, Lawrence Laurence  
 Peterson, Lawrence Carl Kaute  
 Peterson, Stanley Kenneth  
 Petz, Frank  
 Petz, Evelyn Virginia  
 Petz, Alex  
 Pfeiffer, Albert Rosalind  
 Pfeiffer, Peter Williams  
 Pfeiffer, Ruth B.  
 Pfeiffer, Lisa Marie  
 Pfeiffer, Christine Carol  
 Pfeiffer, Jane Woodson  
 Pfeiffer, William Dean  
 Phillips, Cecil B.  
 Phillips, Charles Forrest  
 Phillips, Charles Lee  
 Phillips, Barbara Wales  
 Phisick, Isaac  
 Phisick, Abner Richmond  
 Phisick, Walter Perry  
 Phisick, Chester Clement  
 Phisick, Anne Catherine  
 Phisick, Joseph Theodore  
 Phisick, Raymond Arthur  
 Phisick, Fred Theodore  
 Phisick, Mae  
 Phisick, Samuel Jr.  
 Phisick, Harry William  
 Phisick, Isaac M.  
 Phisick, Edward Andrew  
 Phisick, Margaret Emma  
 Phisick, Harry George  
 Phisick, Edward Morris  
 Pizzatto, Ernest Anselmo  
 Pizzatto, Florence  
 Platt, Elizabeth Ann  
 Platt, David Joseph  
 Plotkin, Percy  
 Plotkin, Beatrice Klenoff  
 Plotkin, Gerald Nathan  
 Plotkin, Harry Murray  
 Plotkin, Isidore  
 Plotnik, Leonard Charles  
 Plotnik, Wanda  
 Plotnik, Peter  
 Plotnik, Sidney  
 Plotnik, Frank Anthony  
 Plotnik, Dorothy Vera  
 Plotnik, Lewis Maple  
 Plotnik, Elsie Leow  
 Plotnik, Ruth Marion  
 Plotnik, Dell Arthur  
 Plotnik, Ralph W.  
 Plotnik, Mary Augusta  
 Plotnik, Vladimir Gabriel  
 Plotnik, George C.  
 Plotnik, Robert Harry  
 Plotnik, Donald Carl  
 Plotnik, Billy Arthur  
 Plotnik, David Eleanor  
 Plotnik, Iva Wanda  
 Plotnik, James I.  
 Plotnik, Eugene  
 Plotnik, Mary Kenneth  
 Plotnik, Jane Elmer  
 Plotnik, John Dale  
 Plotnik, Alan  
 Plotnik, John Philip  
 Plotnik, Elizabeth Campbell  
 Plotnik, Walter  
 Plotnik, Harry  
 Plotnik, Leonard  
 Plotnik, Martin Wesley  
 Plotnik, Edward William  
 Plotnik, Charles Peter  
 Plotnik, Alexander Margaret Ann  
 Plotnik, John Ramon  
 Plotnik, Alex  
 Plotnik, Walter Scott, Jr.  
 Plotnik, Albert Richard  
 Plotnik, Kenneth  
 Plotnik, Sterling Evans  
 Plotnik, John  
 Plotnik, Charles Edward, Jr.
- Q
- Quade, LeRoy Leon  
 Quade, Carl Henry  
 Quade, Norman Louis Y.  
 Quade, Kenneth Eugene  
 Quade, Robert Gordon  
 Quade, Raymond B.  
 Quade, William Joseph  
 Quade, John William  
 Quade, Lawrence Jeremiah  
 Quade, Elizabeth W. Stevens
- R
- Radner, Monroe  
 Radner, Thomas Stephen  
 Radner, John Robert  
 Radner, Van Frances  
 Radner, Fred I.  
 Radner, Joseph S.  
 Radner, Edward Sanford  
 Radner, Joseph I.  
 Radner, John James  
 Radner, John S.  
 Radner, Anne Frederick  
 Radner, Martin Adler  
 Radner, Richard I.  
 Radner, Nelson Simpson  
 Ray, Otto Carlisle  
 Raymond, Douglas Daniel

[illegible]

R. Myers, Lyman Percy  
R. Myers, Oliver P.  
R. Naylor, Fred Lawrence  
R. Nelson, Antoinette Marie  
R. Nelson, Frances Ray  
R. Nelson, Grace Jean  
R. Nelson, Katie  
R. Nelson, Kate  
R. Nelson, Philip Charles  
R. Nelson, Nellie Mary  
R. Nelson, Thomas Ethel  
R. Nelson, Norman  
R. Nelson, George Hamilton  
R. Nelson, Carrie Belle  
R. Ness, Mrs. Elizabeth  
R. Ness, William Omer  
R. Ness, Minnie Le  
R. Ness, Mary  
R. Ness, Robert  
R. Ness, Albert Homer Tape  
R. Ness, John R. Earl  
R. Ness, John  
R. Ness, George S.  
R. Ness, S. S.  
R. Ness, Henry  
R. Ness, George G.  
R. Ness, Isaac  
R. Ness, Walter R. N.  
R. Ness, Albert Thomas  
R. Ness, Nelson Jefferson  
R. Ness, George Fred Race  
R. Ness, George Sam Aaron  
R. Ness, John Le  
R. Ness, Charles  
R. Ness, Abraham T.  
R. Ness, Mary H.  
R. Ness, William Brown, Jr.  
R. Ness, John H. Ness  
R. Ness, Fred George  
R. Ness, Robert George  
R. Ness, Melvin  
R. Ness, Adolph  
R. Ness, Harold  
R. Ness, Joseph Gabriel  
R. Ness, Norman  
R. Ness, Herbert Joseph  
R. Ness, Stanley Howard  
R. Ness, Mable  
R. Ness, Mattie  
R. Ness, Benjamin Anthony  
R. Ness, Stephen Charles  
R. Ness, Catherine R.  
R. Ness, Peter Vincent  
R. Ness, Joseph Cornelius  
R. Ness, John  
R. Ness, Ruth Foster  
R. Ness, Sylvester Joseph  
R. Ness, I.  
R. Ness, Mary L.  
R. Ness, Anna Mary  
R. Ness, Martin Louise  
R. Ness, Anthony Franc  
R. Ness, John F.  
R. Ness, Marie Katherine  
R. Ness, Harold David  
R. Ness, Walter R.  
R. Ness, George  
R. Ness, Charles Edwin  
R. Ness, Michael Joseph, Jr.  
R. Nybak, Vernon Anthony

S  
Sado, Paul Barney  
Sado, Benjah





Sherman, Alfred I  
 Sherman, Bertha Irene  
 Sherman, Casper Alvin  
 Sherman, Evelyn  
 Sherman, Seymour  
 Sherman, Sidney  
 Shields, Wilfred Henry  
 Shields, Joseph  
 Shiman, Leonard Irving  
 Shulman, Charles Malcolm  
 Shumate, Clare  
 Shuman, William, Jr.  
 Shuster, Wilfred E.  
 Shustat, Thomas Richard  
 Shore, Bernard  
 Shuler, Harry Neil  
 Shulman, Fred  
 Shuman, Irving I.  
 Shulman, James Morris  
 Shum, Richard Cliff Shine  
 Shuman, Beatrice  
 Shultzberger, Charles Allen  
 Shuttlesworth, John A.  
 Siley, David Denig  
 Sigal, Herman Israel  
 Sigast, Luciana S.  
 Siggers, Edward Gregory  
 Silverman, Charles Herman  
 Silverman, Gertrude Paul  
 Silverman, Lawrence  
 Silverstein, Milton  
 Silverstein, Milton Julius  
 Simat, Nathan S.  
 Simon, Irma Josefa  
 Simpson, Sara Z.  
 Singel, Robert Duane  
 Singer, Frank N.  
 Singer, George  
 Singer, Harry Joseph  
 Sink, Robert Edward  
 Sisk, Harry Matasha  
 Sisk, Elmer Francis, Jr.  
 Sklamph, Isidore William  
 Skoloba, Elizabeth Katharine  
 Skoloba, Robert T.  
 Slack, Martin J.  
 Slater, Julia  
 Slater, John, Jr.  
 Slater, Alvin  
 Slater, Burton J.  
 Slattery, Thomas George  
 Slavin, Abe P.  
 Sloan, George Remson  
 Slater, Clarence Takemeyer  
 Slutzkey, David  
 Smart, Winfield Depp  
 Smith, Ardie L.  
 Smith, Ardie Orban  
 Smith, Blanche  
 Smith, Cecily Orson  
 Smith, Cecil Paul  
 Smith, David Perry  
 Smith, Dorothy Alden  
 Smith, Edward Alexander  
 Smith, Frank N.  
 Smith, Frederick A.  
 Smith, Harold Alvin  
 Smith, Harold Raymond  
 Smith, Herbert S. J.  
 Smith, James Oscar  
 Smith, Jay, Jr.  
 Smith, John Caywood  
 Smith, Lillian Pearl  
 Smith, Louis Morris  
 Smith, Mary Elizabeth  
 Smith, Reneux Jamison  
 Smith, Townsend Beverley  
 Smith, Wilbur Eugene  
 Smith, William Andrew  
 Smith, William Morgan  
 Smyth, Robert A.  
 Sneiderman, Louis Robert  
 Sniegowski, John Peter  
 Snodgrass, Audrey M.  
 Snyder, Arthur G.  
 Sobel, Abraham Barnett  
 Soborg, Alvin Clinton  
 Sober, Martin  
 Soberberger, Lucy Woodburn  
 Solomon, Richard Allan  
 Sora, Jean Helen  
 Sosnowski, Theodore, L.  
 Soper, Melba Percy  
 Sorkin, Albert  
 Sorkin, George  
 Sosin, Martin  
 Soukup, Josephine  
 Southard, Ann Nelson  
 Southern, Arthur Joseph  
 Spackman, Paul Joseph  
 Spano, Bartholomew Salvatore  
 Sparkman, Joseph Ben, Jr.  
 Sparks, Blanche Edna  
 Spawes, Neal W.  
 Spawes, John M.  
 Spawes, William  
 Spawes, Franklin Albert  
 Spawes, Edward  
 Spawes, Yveta Beatrice  
 Spawes, Sam  
 Spawes, Louis George  
 Spawes, Herman Melville  
 Spawes, Otto E.  
 Spawes, Robert  
 Spawes, Sylvia S.  
 Spawes, Katherine Marie  
 Spawes, Stephen Maxwell  
 Spawes, Michael Ota  
 Spawes, James M.  
 Spawes, Norman Ward  
 Spawes, Nelson C.  
 Spawes, Paul Richard  
 Spawes, John  
 Spawes, James H.  
 Spawes, Joseph Louis  
 Spawes, William Max  
 Spawes, Edward Frederick  
 Spawes, Martin  
 Spawes, William L.  
 Spawes, Belle Catherine  
 Spawes, Norman Edgar  
 Spawes, Morris Leon  
 Spawes, Ralph Carl  
 Spawes, Ralph Michael  
 Spawes, Eric L.  
 Spawes, Alvin Norman  
 Spawes, Vera T.  
 Spawes, William Parvin  
 Spawes, Josephine Mary  
 Spawes, Michael  
 Spawes, Robert Arthur  
 Spawes, Harry John  
 Spawes, Harriet  
 Spawes, Nita Louis  
 Spawes, John Noel, Jr.  
 Spawes, Lillian V.  
 Steele, Mary Marguerite  
 Steele, Varian

Steierman, Bernard Lee  
 Stein, Florence Wimmer  
 Stein, Isadore H.  
 Stein, Rose B.  
 Steinberg, Jack  
 Steiner, Fred Alvin  
 Steinschaber, Theodore Henry  
 Stephens, Edgar A.  
 Stensie, Nina M.  
 Stern, Harry  
 Stenson, Margaret Beaul  
 Steuart, Helen Lucille  
 Stewart, William Henry  
 Steven, Mitchell  
 Stevens, Harry Fae  
 Stevens, Henry Patrick  
 Stevens, John Taylor  
 Stevens, Wayne Lowland  
 Stewart, Donald Dean  
 Stewart, Frederick Gordon  
 Stewart, Milton Herschaw  
 Stewart, Robert Asa  
 Stiller, William Warren, Jr.  
 Stoll, Joseph Wilbana  
 Stone, Kenneth Paul  
 Storer, Maxine Helen  
 Stirling, Robert Campbell  
 Stock, Jack Herbert  
 Stockburger, Arne F.  
 Stoddard, Samuel F. Hanson  
 Stoller, Louis Harry  
 Stolling, Gladys Marie  
 Stoenitz, Laura  
 Stonemel, Elsie A.  
 Stone, Anna Elizabeth  
 Stone, George Edwin  
 Stone, W. Clinton, Jr.  
 Stoppelli, Louis Francis  
 Stoppin, John Bernard  
 Storey, John James  
 Storey, William Wilson  
 Storke, Arthur Cummings  
 Stratts, Harold Francis  
 Stratts, Maxine Frances  
 Straver, Lory Pyers  
 Straver, Ralph Chester  
 Strickman, Philip  
 Strind, Sanford Maynard  
 Strikman, Irvin  
 Street, Samuel John  
 Street, Arthur Norman  
 Strobl, Philip  
 Strong, Robert Herman  
 Struble, Joseph Walmerston, Jr.  
 Strub, John  
 Strunk, Esther May  
 Strunk, George F.  
 Strunk, Charles Crawford  
 Strunk, George Albert  
 Stuart, Dale Carter  
 Stull, John Paul Louis  
 Stuenkel, George William  
 Stuenkel, Norman Alfred  
 Stue, Carl Burton  
 Sturgeon, Miles Germaine  
 Sturges, Joseph Vincent  
 Sturges, Robert Preston  
 Sturmer, Walter Ernest  
 Sturges, Theodore  
 Sturges, Allen Herbert  
 Sturmer, David  
 Sturmer, Fred  
 Sturmerland, William Robert  
 Sutphen, Edgar Howard

Swaim, Bernie Edward  
 Swaim, Harold H.  
 Swanson, I. Chester  
 Sweeney, Albert I.  
 Sweeney, Patrick Martin  
 Sweney, Francis Alexander  
 Swenson, Carl Otto  
 Symes, Harold Alfred  
 Sykes, Gauthier Hunter  
 Szink, Donald Melvin

## T

Tackaberry, Middleton James  
 Tait, Andrew  
 Talarico, Anthony R.  
 Talbert, Howard Emerson  
 Talbott, Edward Ross  
 Talbutt, Harry Warren  
 Tallman, Raymond  
 Tatham, Vincent L.  
 Tattenbaum, Joseph M.  
 Tane, Wac G.  
 Tannehill, Ludema J.  
 Tannenbaum, Hyman  
 Tannenbaum, Joseph  
 Tandler, Ernest John  
 Tappan, Beatrice  
 Tappan, Gordon Jordan  
 Tappan, Joseph Benson  
 Tatham, Christopher C.  
 Tatchell, Pauline  
 Taylor, Charles Edward  
 Taylor, Edward  
 Taylor, Ezra Sherman  
 Taylor, Frank  
 Teague, Richard W.  
 Tebbel, Gilbert  
 Telford, Henry Delano  
 Telford, Robert Morris  
 Temperley, Francis H.  
 Tenenbaum, Jeremiah  
 Tenenbaum, Lenore  
 Terliza, Paul Michael  
 Terry, Leslie Dew  
 Test, Merwin Dwight  
 Testa, Joseph S.  
 Tessak, John Charles  
 Tewson, John Frost  
 Tewkesel, Corbett Carper  
 Thacker, Franklin Leroy  
 Thacker, Melville George William  
 Thayer, Francis Lawrence  
 Thayer, Frank Percy, Jr.  
 Thawes, Richard Frank  
 Thomas, Gordon Samuel  
 Thomas, Frederick Bendall  
 Thomas, Robert Stanley  
 Thomas, Benjamin Allen  
 Thompson, Albert Aubrey  
 Thompson, Francis Clark  
 Thompson, Marjorie Lee  
 Thompson, Melville Axel  
 Thompson, Emily T.  
 Thompson, Raymond Joseph  
 Thomsen, Ralph H.  
 Thomsen, Roy Edwin  
 Thomsen, John L. Jr.  
 Thomsen, Joseph Lawrence  
 Thomsen, Chester Vincent  
 Thorne, William Seymour  
 Thorne, Carl George  
 Thorne, Frank Vincent  
 Thorne, George Albert  
 Thomsen, Murray George

Vallner, Milton Herman  
Vande, August Felix  
Vande, Joseph  
Vande, Arthur, Joseph  
Van Buren, William R.  
Vander, Frank Joseph  
Vetter, Louis

## 33

Wagar, Eleanor Roberta  
Wagner, Clyde Monroe  
Wagner, John North  
Wald, Virginia Ann  
Walker, Tracy Barton  
Walker, Frances Lyle  
Walker, George  
Walker, Paul Wesley  
Walker, Patricia R.  
Walker, Walter L. Pratt  
Walker, Edward John  
Walker, Thomas Robert  
Walker, Walter Albert  
Walker, Irene Margaret  
Walker, William August  
Walker, Patricia Ruth  
Walker, Henry Robert  
Walker, James Martin III  
Walker, Maria Pearl  
Walker, Thomas H.  
Walker, Frank Edward  
Walker, Richard S.  
Walker, Margaret Leslie  
Wall, Paul Phineas  
Wall, Paul J.  
Wall, Gertrude Hoffman  
Wall, Lawrence E.  
Wallace, Carolyn Sanderson  
Wallace, Maxine H.  
Wallace, Pamela Crest  
Wallace, Robert M.  
Wallace, Thomas Anna  
Wallace, Maxine R.  
Wallace, M. Daniel H.  
Wallace, James  
Wallace, Florence E.  
Wallace, James Marshall  
Wallace, Robert Howell  
Wallace, Thomas Arthur  
Wallace, Thomas  
Wallace, Paul Paul  
Wall, William  
Wallace, Clark Webster  
Wall, Patricia Taylor  
Wallace, Frank D.  
Wallace, Leslie Ann  
Wallace, Robert William  
Wall, Georgeanna  
Wall, Margaret Rose  
Wall, Philip Peter  
Wallace, Edward Patrick  
Wallace, Louise  
Wallace, Samuel  
Wall, George Benson  
Wall, William Lloyd  
Wallace, Rose  
Wallace, Milton  
Wall, Charles  
Wall, William Conrad  
Wall, Albert  
Wall, George  
Wall, Philip  
Wallace, Mary Marcy  
Wall, Ben Foley  
Wells, Herbert C. Mottok, Jr.



Wells, Lola Margaret  
 Wells, Thomas Lowell  
 Welsh, Harvey Albertus  
 Wernecke, Louis Richard  
 Werner, LeRoy Louis  
 Wernimont, Wayne H.  
 Wertz, Haldeman Strickler  
 West, George Thomas  
 West, Wilburn C.  
 Westcott, Cora May  
 Westcott, Hoyt Sloan, Jr.  
 Westmoreland, William Percival  
 Whalen, George Chandley  
 Wharton, Lawrence C.  
 Whatley, David Todd  
 Wheeler, William Alson  
 Wheller, Ray Phillip, Jr.  
 Whetzell, Carl Sanford  
 Whitaker, Mary Cornelia  
 Whitaker, Richard Frederick  
 Whitcomb, Eben Morrison  
 White, Albert Carl  
 White, Alonzo III  
 White, Annie Laurie  
 White, Clifford Charles  
 White, Herman Jack  
 White, Lee Robert  
 White, Lois Hess  
 White, Maurice Francis  
 White, Walter Ernest  
 Whitelaw, Frieda L.  
 Whittemoss, Alfred Edmondson  
 Whittlesey, Welsh Condit  
 Whittredge, Robert Brainerd  
 Whitty, Mary Alma  
 Wick, Dwan Theile  
 Wiggins, John E., Jr.  
 Wigglesworth, Verda M.  
 Wilcox, Annette Twilley  
 Wilcox, Chester M.  
 Wilcox, Margaret  
 Wildman, Evelyn Mary  
 Wilgus, Edward Clark  
 Wilkenloh, Charles Edward  
 Wilkerson, Marvin  
 Wilkins, James Kenneth  
 Wilkinson, James Booth  
 Willett, Donald Karl  
 Willette, Claude  
 Wiley, Gordon Brockway  
 Williams, Arthur Edwards  
 Williams, Betty Frances  
 Williams, Doris  
 Williams, Effie S.  
 Williams, Emile Allan  
 Williams, Frank Grant  
 Williams, Harry Richard  
 Williams, Henry Cleveland  
 Williams, James Carroll  
 Williams, Lee  
 Williams, Marion E.  
 Williams, Robert McDowell  
 Williams, Louis  
 Williams, Grace Elizabeth  
 Wilson, Allen Herold  
 Wilson, Donald Smith  
 Wilson, Ellsworth Stanley  
 Wilson, Harold  
 Wilson, Harry Porter  
 Wilson, James Rowland  
 Wilson, Ruby Elizabeth  
 Wilson, William Lee  
 Wilson, Willis Woodrow  
 Windham, Donald Edward

Windheim, Anthony Joseph  
 Winick, David Stanley  
 Winokur, Louis  
 Winslow, Gibbs Jabez  
 Winston, Carey  
 Winterfeld, Dell M.  
 Winterfeldt, Arthur Frederick  
 Wintermoyer, Robert Lee  
 Winthrop, Eugene  
 Wirfel, Robert Adolph  
 Wise, Louis  
 Wiseman, Donald Carlton  
 Witham, Carey Ray  
 Witmer, Earl John  
 Witmer, Willard Clarence  
 Witters, Frank Orville  
 Wittig, Emil  
 Wohl, Elmer Philip  
 Wolfe, B. G.  
 Wolfe, Ben Martin  
 Wolfe, Harry Cunningham  
 Wolfe, Leon  
 Wolfe, Nancy  
 Wolfinger, Irwin Penrose  
 Wolz, Charles Conrad, Jr.  
 Wood, Rulon Melvin  
 Woods, Charles Sackett  
 Woodward, John Judge  
 Woosman, Harry  
 Wootton, Roland Henry  
 Worth, Rudolph Christian  
 Wright, Charles Silliman  
 Wright, Frank Coyle  
 Wright, Isabel  
 Wright, J. Howard  
 Wright, Margaret Barrett  
 Wuest, Adriana V.  
 Wurzbacher, Frank Richard  
 Wvatt, Irma Lee  
 Wyckoff, Harold O.  
 Wyss, Ernst Albert

## Y

Yachmetz, Stephen, Jr.  
 Yarger, Evelyn Margaret  
 Yasunobu, Janet Chieko  
 Yee, Yow Gar  
 Yeoman, Esther Mae  
 Yeomans, Cornelia Hightower  
 Yoast, Clyde W.  
 Yorke, Edward Walter, Jr.  
 You, James C. M.  
 Young, Charles Henry  
 Young, Frank F.  
 Yurman, Leah

## Z

Zabotky, Murray  
 Zandwager, Elias  
 Zalkin, Joseph  
 Zangerl, Francis Albert  
 Zangwill, Leon Bernard  
 Zawatzky, Anthony Louis  
 Zee, Helen Leel  
 Zessler, Wilma Emma  
 Zelazo, Nathaniel K.  
 Zeller, Fred  
 Zelensky, Wilbur  
 Ziemski, Daniel A.  
 Zietz, Isidore  
 Zimmerman, Elizabeth Lewis  
 Zimmerman, Elsie  
 Zimmers, Robert Melvin

---

*Students Registered*

459

Zingel, Lewis, Jr.  
Zion, Lois Barbara  
Zlotnick, Jack  
Zore, Frank John

Zuch, G. L.  
Zurad, Bruno H  
Zussman, Herbert Louis  
Zych, Henry Paul

# SUMMARY OF REGISTRATION

1942-43

## THE JUNIOR COLLEGE

Freshmen .....	1,030
Sophomores .....	770

## COLUMBIAN COLLEGE

Juniors .....	244
Seniors .....	273
Candidates for the degree of Master of Arts .....	134
Candidates for the degree of Master of Science .....	58

## THE GRADUATE COUNCIL

Candidates for the degree of Doctor of Philosophy .....	65
---	----

## THE SCHOOL OF MEDICINE

Class entering May 1943 .....	83
Class entering June 1942 .....	78
Class entering September 1941 .....	83
Class entering September 1940 .....	64
Class entering September 1939 .....	72

## THE LAW SCHOOL

First Year .....	239
Second Year .....	77
Third Year .....	50
Candidates for the degree of Master of Laws .....	21
Candidates for the degree of Doctor of Juridical Science .....	5
Unclassified .....	20
Special .....	5

## THE SCHOOL OF ENGINEERING

Freshmen .....	245
Sophomores .....	77
Juniors .....	47
Seniors .....	71

## Summary of Registration

461

### THE SCHOOL OF PHARMACY

Candidates for degrees in Pharmacy.....	27
---	----

27

### THE SCHOOL OF EDUCATION

Juniors .....	60
Seniors .....	63
Candidates for the degree of Master of Arts.....	120
Candidates for the degree of Doctor of Education.....	37

280

### THE SCHOOL OF GOVERNMENT

Juniors .....	77
Seniors .....	63
Candidates for the degree of Master of Arts.....	67

207

### THE DIVISION OF UNIVERSITY STUDENTS

"University Students" .....	3,035
-----------------------------	-------

3,035

Students registered, Academic Year 1942-43 .....	7,924
Students registered, Summer Sessions 1942 .....	3,221

Total number of registrations .....	11,145
Duplicates .....	1,999

Total number of students registered.....	9,146
--	-------



# GEOGRAPHICAL DISTRIBUTION OF STUDENTS

1942-43

Alabama .....	64	Rhode Island .....	15
Arizona .....	26	South Carolina .....	56
Arkansas .....	51	South Dakota .....	46
California .....	131	Tennessee .....	71
Colorado .....	46	Texas .....	185
Connecticut .....	80	Utah .....	50
Delaware .....	9	Vermont .....	18
District of Columbia.....	3,155	Virginia .....	748
Florida .....	77	Washington .....	66
Georgia .....	61	West Virginia .....	101
Idaho .....	34	Wisconsin .....	85
Illinois .....	255	Wyoming .....	23
Indiana .....	98	Alaska .....	1
Iowa .....	134	Bolivia .....	1
Kansas .....	80	Brazil .....	10
Kentucky .....	68	Canada .....	12
Louisiana .....	36	Chile .....	3
Maine .....	36	Colombia .....	8
Maryland .....	632	Cuba .....	1
Massachusetts .....	179	England .....	1
Michigan .....	91	Finland .....	6
Minnesota .....	116	Hawaii .....	5
Mississippi .....	54	Iran .....	1
Missouri .....	109	Mexico .....	1
Montana .....	31	New Zealand .....	1
Nebraska .....	89	Nicaragua .....	8
Nevada .....	9	Panama .....	1
New Hampshire .....	18	Peru .....	6
New Jersey .....	175	Philippine Islands .....	6
New Mexico .....	22	Puerto Rico .....	3
New York .....	817	Scotland .....	1
North Carolina .....	80	Sweden .....	3
North Dakota .....	23	Turkey .....	4
Ohio .....	176	U. S. S. R. ....	3
Oklahoma .....	109	Venezuela .....	1
Oregon .....	21		
Pennsylvania .....	388	Total.....	9,146

## GENERAL SUMMARY

1942-43

### TEACHING STAFF

Professors Emeritus .....	23
Professors .....	66
Adjunct Professors .....	22
Professorial Lecturers .....	29
Clinical Professors .....	25
Adjunct Clinical Professors .....	6
Associate Professors .....	34
Associate Clinical Professors .....	7
Associates in the School of Medicine .....	32
Assistant Professors .....	34
Assistant Clinical Professors .....	7
Lecturers .....	43
Instructors .....	23
Clinical Instructors .....	81
Research Associate .....	1
Associates .....	16
Fellows .....	17
Assistants .....	16
Total .....	482

### STUDENTS REGISTERED

The Junior College .....	2,370
Columbian College .....	709
The Graduate Council .....	65
The School of Medicine .....	380
The Law School .....	432
The School of Engineering .....	419
The School of Pharmacy .....	27
The School of Education .....	280
The School of Government .....	207
The Division of University Students .....	3,035
The Summer Sessions 1942 .....	3,221
Total number of registrations .....	11,145
Duplicates .....	1,999
	9,146

### CERTIFICATES AWARDED AND DEGREES CONFERRED

Junior Certificates .....	229
Bachelor of Arts .....	159
Bachelor of Arts in Education .....	23
Bachelor of Arts in Government .....	44
Bachelor of Science .....	34
Bachelor of Science in Engineering .....	4
Bachelor of Civil Engineering .....	8

Bachelor of Electrical Engineering . . . . .	4
Bachelor of Mechanical Engineering . . . . .	8
Bachelor of Science in Pharmacy . . . . .	17
Bachelor of Science in Home Economics . . . . .	12
Bachelor of Science in Physical Education . . . . .	17
Bachelor of Laws . . . . .	17
Master of Arts . . . . .	4
Master of Arts in Education . . . . .	4
Master of Arts in Government . . . . .	4
Master of Science . . . . .	3
Master of Laws . . . . .	17
Juris Doctor . . . . .	21
Doctor of Medicine . . . . .	1
Doctor of Education . . . . .	1
Doctor of Philosophy . . . . .	1
Total . . . . .	74







THE LAW SCHOOL  
IN THE  
NATIONAL EMERGENCY

1943-44



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLII

No. 5

---

THE LAW SCHOOL

---

WASHINGTON, D. C.

PUBLISHED IN JULY  
MCMXLIII

BY THE UNIVERSITY





## CONTENTS

	PAGE
CALENDER OF THE LAW SCHOOL .....	vi
THE UNIVERSITY .....	1
The Board of Trustees .....	3
Officers of Administration .....	4
History and Organization .....	5
THE LAW SCHOOL .....	7
The Faculty .....	9
General Information .....	13
Admission .....	16
Registration .....	18
Fees and Financial Regulations .....	18
Scholarships, Prizes, Loan Funds .....	20
Revocation .....	21
Student Life .....	23
The Degrees .....	24
COURSES OF INSTRUCTION IN LAW .....	27
DEGREES CONFERRED, 1942-43 .....	33
STUDENTS REGISTERED, 1942-43 .....	36
SUMMARIES OF REGISTRATION, 1942-43 .....	43
INDEX .....	46

# CALENDAR OF THE LAW SCHOOL

1943-44

Date	Day	Occasion
<b>Fall Term:</b>		
Oct. 4.....	Monday .....	Fall term begins
Nov. 25.....	Thursday .....	Thanksgiving Day. Holiday
Nov. 29 and 30....	Monday and Tuesday	Mid-term examinations
Dec. 24-Jan. 1....	Friday through Saturday	Christmas recess
Jan. 3.....	Monday .....	Classes resume
Jan. 28-Feb. 3....	Friday through Thursday	Fall term examinations
<b>Winter Term:</b>		
Feb. 4.....	Friday .....	Winter term begins
Feb. 22.....	Tuesday .....	Winter Convocation. Holiday
March 31 and April 1	Friday and Saturday	Mid-term examinations
April 7 and 8.....	Friday and Saturday	Easter recess
May 22-27.....	Monday through Saturday	Winter term examinations
May 28.....	Sunday .....	Baccalaureate sermon
May 30.....	Tuesday .....	Memorial Day. Holiday
May 31.....	Wednesday .....	Commencement
<b>Summer Term:</b>		
June 5.....	Monday .....	First session begins
July 4.....	Tuesday .....	Independence Day. Holiday
July 26.....	Wednesday .....	First session ends
July 27.....	Thursday .....	Second session begins
Sept. 4.....	Monday .....	Labor Day. Holiday
Sept. 20.....	Wednesday .....	Second session ends
Oct. 2.....	Monday .....	Fall term 1944-45 begins

THE UNIVERSITY





## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President of the University ex officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
Arthur Peter, LL.B., *Vice Chairman*  
Harry Cassell Davis, A.M., L.H.D., *Secretary*  
Henry Parsons Erwin, A.B., *Assistant Secretary*

---

Avery DeLano Andrews, B.S., LL.B.  
Clarence Aiken Aspinwall  
Charles Silas Baker, A.M., LL.B.  
\*Harvey Cleveland Bickel, LL.B.  
John St. Clair Brookes, Jr., A.M., LL.B.  
\*Bennett Champ Clark, A.B., LL.B.  
John Henry Cowles, LL.D.  
\*Newell Windom Ellison, A.B., LL.B.  
Mrs. Joshua Evans, Jr., A.B., Ed.D.  
\*George Edgar Fleming, LL.M.  
\*Robert Elliott Freer, A.B., LL.M.  
Charles William Gerstenberg, Ph.B., LL.B., J.D.  
Charles Carroll Glover, Jr., A.M., LL.B.  
Ulysses S. Grant, 3d, B.S., Graduate United States Engineers' School  
Gilbert Grosvenor, A.M., LL.D., Litt.D.  
John Edgar Hoover, LL.M., LL.D.  
Alfred Henry Lawson, LL.B.  
Theodore Williams Noyes, A.M., LL.M., LL.D.  
Luther Halsey Reichelderfer, M.D., LL.D.  
Mrs. Henry Alvah Strong, LL.D.  
Merle Thorpe, A.B.  
Walter Rupert Tuckerman, A.B., LL.B.  
\*Alexander Wilbourne Weddell, LL.B., Litt.D., LL.D.  
Chester Wells, B.S., Graduate United States Naval War College  
Lloyd Bennett Wilson

\* Nominated by the alumni



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President of the University *ex officio* and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
Arthur Peter, LL.B., *Vice Chairman*  
Harry Cassell Davis, A.M., L.H.D., *Secretary*  
Henry Parsons Erwin, A.B., *Assistant Secretary*

---

Avery DeLano Andrews, B.S., LL.B.  
Clarence Aiken Aspinwall  
Charles Silas Baker, A.M., LL.B.  
\*Harvey Cleveland Bickel, LL.B.  
John St. Clair Brookes, Jr., A.M., LL.B.  
\*Bennett Champ Clark, A.B., LL.B.  
John Henry Cowles, LL.D.  
\*Newell Windom Ellison, A.B., LL.B.  
Mrs. Joshua Evans, Jr., A.B., Ed.D.  
\*George Edgar Fleming, LL.M.  
\*Robert Elliott Freer, A.B., LL.M.  
Charles William Gerstenberg, Ph.B., LL.B., J.D.  
Charles Carroll Glover, Jr., A.M., LL.B.  
Ulysses S. Grant, 3d, B.S., Graduate United States Engineers' School  
Gilbert Grosvenor, A.M., LL.D., Litt.D.  
John Edgar Hoover, LL.M., LL.D.  
Alfred Henry Lawson, LL.B.  
Theodore Williams Noyes, A.M., LL.M., LL.D.  
Luther Halsey Reichelderfer, M.D., LL.D.  
Mrs. Henry Alvah Strong, LL.D.  
Merle Thorpe, A.B.  
Walter Rupert Tuckerman, A.B., LL.B.  
\*Alexander Wilbourne Weddell, LL.B., Litt.D., LL.D.  
Chester Wells, B.S., Graduate United States Naval War College  
Lloyd Bennett Wilson

\* Nominated by the alumni



## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*

Harold Griffith Sutton, M.S., *Director of Admissions*

Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*

John Russell Mason, B.S. in L.S., A.M., *Librarian*

\*Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*

Myrna Pauline Sedgwick, A.B., *Administrative Secretary*

Henry William Herzog, B.S., *Comptroller*

Allen Howard Connolly, B.S., *Business Manager*

\*Daniel LeRay Borden, A.M., M.D., *Director of Health Administration*

Benjamin Franklin Dean, M.S., M.D., *Acting Director of Health Administration*

Vinnie Giffen Barrows, A.M., *Director of Personnel Guidance*

\*Claud Max Farrington, A.M., *Adviser on Physical Education*

Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Countries*

Lester Allan Smith, A.M., *Alumni Secretary*

### THE LAW SCHOOL

William Cabell Van Vleck, A.B., LL.B., S.J.D., *Dean of the Law School*

Anna Marie Bischoff, A.B., *Secretary to the Dean of the Law School*

Madora Jane Doherty, A.B., *Assistant Librarian in Charge of the Law Library*

\* On war leave 1943-44

# THE UNIVERSITY

## HISTORY AND ORGANIZATION

The idea of a university in the Capital of the Nation was sponsored by George Washington, who during his public life urged the establishment of such an institution and who in his will left fifty shares of stock in the Potomac (Canal) Company for the endowment of a university to be established in the District of Columbia "to which the youth of fortune and talents from all parts thereof might be sent for the completion of their Education in all the branches of polite literature;—in arts and Sciences,—in acquiring knowledge in the principles of Politics & good Government".

The George Washington University operates under a charter granted by an act of Congress of February 9, 1821, to Columbian College in the District of Columbia. In 1873 the name was changed to "Columbian University" and in 1904 to "The George Washington University".

The University as it is now organized consists of the Junior College, comprising the work of the freshman and sophomore years; Columbian College, the senior college of liberal arts, which offers work leading to the Bachelor's and Master's degrees; the Graduate Council, which offers work leading to the degree of Doctor of Philosophy; the professional schools, which include Medicine, Law, Engineering, Pharmacy, Education, and Government; the Division of University Students, which leads to no degree but makes the work of the University accessible to the mature student; the Division of Extension; the Inter-American Center; and the Summer Sessions.

## ACADEMIC STATUS

The George Washington University is on the approved list of the Association of American Universities, the standard accrediting body for the United States. This fact not only assures to students the academic standards of this accrediting body, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women.

The Law School is a charter member of the Association of American Law Schools and is approved by the Council of Legal Education of the American Bar Association.

#### LOCATION

The George Washington University is in downtown Washington, four blocks west of the White House and east of the Potomac River with its extensive parkway. Within a few blocks are the buildings housing the offices of many of the departments of the Government, including the Department of State, the Department of the Treasury, the Department of War, the Department of Justice, the Department of the Navy, the Department of the Interior, the Department of Agriculture, the Department of Commerce, and the Department of Labor. The Corcoran Gallery of Art, the Pan American Union Building, and the National Academy of Sciences are also near by; and the Capitol and the Library of Congress are readily accessible.

THE LAW SCHOOL





# THE LAW SCHOOL

## THE FACULTY

### CLOYD HECK MARVIN

*President of the University*

AB 1915, A.M. 1916, University of Southern California; A.M. 1917, Ph.D. 1919, Harvard University; LL.D. 1922, University of New Mexico. Instructor 1914-15, University of Southern California; Assistant Professor 1915-16, Associate Professor of Commerce, Assistant Professor and Lect. 1916-22, University of California at Los Angeles; Professor of Economics, President 1922-27, University of Arizona. President 1927-31, The George Washington University.

### WILLIAM CABELL VAN VLECK

*Professor of Law, Dean of the Law School*

AB 1908, LL.B. 1911, The George Washington University; S.J.D. 1921, Harvard University. Member National Science Foundation 1924 and 1925; University of Maryland, 1927; at Stanford University, 1931; University of Chicago, one of the Awardees in the Recognition of Conflict of Laws. Member Law Institute, 1926-34; Research Fellow 1931-33, Harvard University Law School. Instructor in Law 1912-16, Assistant Professor of Law 1916-19, Professor of Law 1919-21, Secretary of the Law School 1921-20, Acting Dean of the Law School 1920-24, Dean of the Law School 1924-31. The George Washington University.

Subjects: Conflict of Laws, Torts

### WALTER COLLINS CLEPHANE

*Professor Emeritus of Law*

LL.B. 1889, LL.M. 1891, LL.D. 1922, The George Washington University. Member 1892-93, Committee on Administration and Government, District Court of the United States for the District of Columbia. Member Faculty, Contributor of Cases to Reports on Uniform State Laws. In Practice of Law 1889-91, now Member of Conference, Barmer and Hall, Washington (D. C.). Instructor in Law 1891-92, Professor of Law 1892-93, Professor Emeritus of Law 1924-31. The George Washington University.

### WENDELL PHILLIPS STAFFORD

*Professor Emeritus of Law*

LL.B. 1884, Boston University; A.M. 1887, Dartmouth College; LL.D. 1905, LL.D. 1920, University of Vermont; LL.D. 1921, Georgetown University; LL.D. 1921, Middlebury College; LL.D. 1926, The George Washington University. Judge 1900-1924, Supreme Court of Vermont; LL.M. 1924, LL.D. 1924, Supreme Court of the District of Columbia; Lecturer in Law 1924-26, Georgetown University. Professor of Law 1926-29, Professor Emeritus of Law 1929-31. The George Washington University.

### JOHN WILMER LATIMER

*Professor Emeritus of Law*

LL.B. 1887, The George Washington University. In Practice of Law 1906-13, 1917-21; Lect. 1913-15, District Court of the District of Columbia. Member 1918-21, Conference, Barmer and Hall, Washington (D. C.). Clerk of the Court 1904-7, Instructor in Law 1907-9, Assistant Professor of Law 1909-13, Professor of Law 1913-21, Professor Emeritus of Law 1921-31. The George Washington University.

### GILBERT LEWIS HALL

*Professor Emeritus of Law*

AB 1876, Swarthmore College; LL.B. 1918, The George Washington University. Teacher in Practice of Law with Conference & Barmer, Washington (D. C.) 1918-36; Member 1918-21, Conference, Barmer and Hall, Washington (D. C.); Lecturer in Law 1920-38, Assistant Professor of Law 1938-42, Professor Emeritus of Law, 1942-31. The George Washington University.

### WALTER LEWIS MOLI

*Professor Emeritus of Law*

AB 1899, Concordia College (Ind.); Graduate 1899, Concordia Theological Seminary (St. Louis); LL.B. 1921, Indiana University; S.J.D. 1924, Harvard University. Univer-

city Scholar 1902-3, University Fellow 1903-4, Johns Hopkins University; Professor of English 1904-9, Professor of Greek 1909-20, Concordia College (Ind.), in Practice of Law with Ochs & Thomas, Fort Wayne (Ind.) 1920-22, Instructor in Commercial Law 1920-21, Instructor in Law 1921-23, Indiana University; Professor of Law 1924-30, Professor Emeritus of Law 1943-, The George Washington University.

### CHARLES SAGER COLLIER

#### *Professor of Law*

A.B. 1911, LL.B. 1915, S.J.D. 1912, Harvard University. In Practice of Law with Rouse Schurman and Dwight (later Hughes, Schurman and Dwight), New York City. Member Staff 1918-19, Cornell University Law School; Ezra Ripley Thayer Teaching Fellow 1931-32, Harvard University Law School; Member Faculty, Second Semester 1935-36, University of Wisconsin Law School; Assistant Professor of Law 1928-31, Dean of the Law School 1930-31, Professor of Law 1921-, The George Washington University.

Subjects: Administrative Law, Constitutional Law, Jurisprudence, Public Utilities, Taxation

### HECTOR GALLOWAY SPAULDING

#### *Professor of Law*

B.S. 1900, University of Minnesota; LL.B. 1903, S.J.D. 1924, Harvard University. Acting Assistant Professor of Law 1914-15, Stanford University; in Practice of Law with Ritchie, Woodford, Bovee and Butler, New York City; with Cassaday, Butler, Lamb and Porter, Chicago; Assistant Professor of Law 1920-22, Professor of Law 1922-, The George Washington University.

Subjects: Business Associations, Contracts, Equity, Property, Labor Law

### \*WILLIAM THOMAS FRYER

#### *Professor of Law*

A.B. 1922, LL.B. 1924, The George Washington University; J.D. 1925, Yale University. In Practice of Law with William Pepper Constable, Baltimore (Md.) 1924-26, Assistant Professor of Law 1926-29, Associate Professor of Law 1929-40; Professor of Law 1940-, The George Washington University.

Subjects: Personal Property, Evidence, Civil Procedure, Security

### SAUL CHESTERFIELD OPPENHEIM

#### *Professor of Law; Editor-in-Chief of the Law Review*

A.B. 1918, A.M. 1920, Columbia University; J.D. 1926, S.J.D. 1929, University of Michigan. Instructor in Economics 1921-26, Teaching and Research Assistant, The Law School 1926-27, University of Michigan; Assistant Professor of Law 1927-30, Associate Professor of Law 1930-40; Professor of Law 1940-, The George Washington University.

Subjects: Negotiable Instruments, Sales, Trade Regulation, Property, Wills

### CARVILLE DICKINSON BENSON

#### *Professor of Law*

A.B. 1920, Johns Hopkins University; LL.B. 1923, S.J.D. 1926, Harvard University. In Practice of Law with Benson, Nock & Rowe, Baltimore (Md.) 1923-25; Assistant Professor of Law 1926-29, Emory University; Assistant Professor of Law 1929-31, Associate Professor of Law 1931-43; Professor of Law 1943-, The George Washington University.

Subjects: Civil Procedure, Evidence, Judicial Process, Property, Wills

### †LOYD HALL SUTTON

#### *Adjunct Professor of Law*

B.S. 1908, Massachusetts Institute of Technology; LL.B. 1913, The George Washington University. Assistant Instructor in Engineering 1908-9, Massachusetts Institute of Technology, Assistant Examiner 1917-19, U. S. Patent Office, in Practice of Law 1916-19, Member 1927-, Cameron, Kerkam & Sutton; Instructor 1914-17, Associate Professor 1917-35, Adjunct Professor of Law 1935-, The George Washington University.

Subject: Patent Law

\* On war leave.

† The title "Adjunct Professor" indicates that the faculty member is of full professional rank but carries only a limited schedule of instruction and is primarily engaged in the active instruction or practice of law on the bench or before the bar.

\*SPENCER GORDON

*Adjunct Professor of Law*

AB 1920, Princeton University; LL.B. 1922, The George Washington University. In Practice of Law 1922-23, Washington (D. C.) and Chicago; Member Covington, Burling, Robles, Acheson and Shorb, Washington (D. C.); Lecturer in Law 1922-25, Adjunct Professor of Law and Judge of the Moot Court 1926-. The George Washington University.

Subject: Moot Court

\*CONWAY PEYTON COE

*Adjunct Professor of Law*

AB 1918, Randolph-Macon College; LL.B. 1922, The George Washington University. Assistant Examiner 1918-25, U. S. Patent Office; in Practice of Law 1921-22; U. S. Commissioner of Patents 1923-. Adjunct Professor of Law 1937-. The George Washington University.

Subject: Patent Moot Court

LEVI RUSSELL ALDEN

*Adjunct Professor of Law*

AB 1905, A.M. 1904, LL.B. 1906, The George Washington University. A.M. 1907, Harvard University. In Practice of Law 1908-. Washington (D. C.); Assistant in History 1903-4, Instructor in History 1904-6, Assistant Professor of History 1911-20, Assistant Professor of Commercial Law 1913-22, Professor of Commercial Law 1922-28, Lecturer on Admiralty 1929-38, Adjunct Professor of Law 1938-. The George Washington University.

Subject: Admiralty

\*GEORGE BOWDOIN GRAIGHILL

*Adjunct Professor of Law*

AB 1913, University of the South, LL.B. 1916, Georgetown University. Member M. Kenney, Peabody and Company, Lecturer 1911-24, Washington College of Law; Adjunct Professor of Law 1939-. The George Washington University.

Subject: Moot Court

\*JAMES WARD MORRIS

*Adjunct Professor of Law*

AB 1912, University of North Carolina. In Practice of Law 1913-33; Special Assistant to the Attorney General 1913-14; Assistant Attorney General of the United States 1915-30; Associate Justice 1939-, United States District Court for the District of Columbia; Adjunct Professor of Law 1939-, The George Washington University.

Subject: Moot Court

\*JAMES OLIVER MURDOCK

*Adjunct Professor of Law*

Ph.B. 1916, University of Chicago; LL.B. 1924, Harvard University. Student, Summer 1920, Academy of International Law at The Hague; in Practice of Law with Cadwallader, Wickersham and Taft, New York City, 1924-25; Assistant U. S. Attorney 1925-27, Southern District of N. Y.; Assistant Solicitor and Assistant Legal Adviser 1927-16, U. S. Dept. State; Counsel for the United States 1927-33, International Joint Commission, United States Canada; Secretary to American Delegation, 1928-29, International Conference of American States on Conciliation and Arbitration; Counsel for United States 1932, United States Sweden Arbitration; in Private Practice of Law 1937-. Lecturer in Law 1940-. The George Washington University.

Subjects: Comparative Law, International Law

\*JAMES FORRESTER DAVISON

*Associate Professor of Law*

AB 1921, LL.B. 1923, Dalhousie University; LL.M. 1924, S.J.D. 1926, Harvard University. Lecturer in Roman Law and Jurisprudence 1924-28, Assistant Professor of Roman Law and Jurisprudence 1928-29, University of Toronto; Brandeis Research Fellow 1928-29, Research Fellow 1929-30, Harvard University. Assistant Professor of Law 1930-36, The George Washington University.

Subjects: Administrative Law, Federal Jurisdiction, Legislation, Public Utilities

\* The title "Adjunct Professor" indicates that the faculty member is of full professional rank, but carries only a limited schedule of instruction and is primarily engaged in the active administration or practice of law on the bench or before the bar.  
† On war leave 1943-44



## \*JOHN ALBERT MCINTIRE

*Associate Professor of Law*

A.B. 1928, Wittenberg College; LL.B. 1931, University of Cincinnati. Rescued from 1935-36, Harvard University Law School; Editor 1937, *Manuscript Law Review*; Executive Director 1938- National Institute of Municipal Law Officers. Faculty 1938-42, in-Chief, 1932-42. *The George Washington Law Review*; Instructor in Law 1938-42, The George Washington University.

Subjects: Contracts, Current Decisions, Government Corporations and Instrumentalities

## \*WILLIAM RANDALL COMPTON

*Associate Professor of Law*

LL.B. 1928, Union University (N. Y.); M.B.A. 1931, Harvard University; J.S.D. 1931, Cornell University, Clerk to Committee on Labor and Industry 1925-28, New York State Senate; Dean and Professor of Business Administration 1931-32, Green Mountain College; in Practice of Law with McDowell and McDowell, Hinton (N. Y.) 1932-38; Assistant Professor of Law 1935-40; Associate Professor of Law 1940-42, The George Washington University.

Subjects: Agency, Business Associations, Persons and Domestic Relations

## \*CHESTER CHARLES WARD

*Associate Professor of Law*

B.S. 1931, Georgetown University; LL.B. 1935, LL.M. 1936, The George Washington University. Legal Editor 1933-35, *U. S. Law Week*; Associate Editor 1937-38, *Labor Relations Reporter*; Instructor in Law 1935-37, Assistant Professor of Law 1937-40, Associate Professor of Law 1940-42, The George Washington University.

Subjects: Criminal Law, Torts, Labor Law, Labor Relations Regulation

## ‡CLARENCE ALTHA MILLER

*Lecturer in Law*

LL.B. 1919, LL.M. 1921, The George Washington University. General Counsel, The American Short Line Railroad Association; Lecturer in Law 1921-22, The George Washington University.

Subject: Interstate Commerce Law and Procedure

## JAMES ROBERT KIRKLAND

*Lecturer in Law*

A.B. 1927, LL.B. 1928, LL.M. 1929, The George Washington University. Assistant U.S. Attorney for the District of Columbia 1929-34; Member 1938-39, Cromelin, Townsend, Camaller and Kirkland, Washington (D. C.); Lecturer in Law 1934-39, The George Washington University.

Subject: Criminal Law

## \*JAMES ALBERT PIKE

*Lecturer in Law*

A.B. 1934, LL.B. 1936, University of Southern California; J.S.D. 1938, Yale University. Sterling Fellow 1936-37, Yale University; Legal Assistant 1937-38, American Federation of Labor; Lecturer in Law 1938-39, Catholic University of America; Attorney 1939-42, U. S. Securities and Exchange Commission; Lecturer in Law 1939-42, The George Washington University.

Subject: Civil Procedure

## ARCHIBALD KING

*Lecturer in Law*

A.B. 1903, A.M. 1904, LL.B. 1906, Harvard University; LL.D. 1942, Boston University. In Practice of Law with King and King, Washington (D. C.) 1904-16; Lecturer in Law 1914-16, Washington University.

Subject: Military Law

## WILLIAM LEIGH ELLIS

*Lecturer in Law*

A.B. 1929, Hillsdale College; LL.B. 1933, LL.M. 1936, The George Washington University. Special Claims Examiner, U. S. General Accounting Office 1936-38; Attorney

\* On war leave 1943-44.

‡ On leave of absence 1943-44.

1918-42, Principal Attorney 1942- . Office of the Comptroller General of the United States. Lecturer in Law 1942- . The George Washington University.

# JUSTIN LINCOLN EDGERTON

Lecturer in Law, Clerk of the Moot Court

AB 1929, LL.B. 1931, The George Washington University. In Practice of Law with Frank E. Neill 1931-33. Washington (D. C.) Member 1937- . Nisbet, Pledger and Johnson, Washington, (D. C.) Clerk of the Moot Court 1936- . Associate in Law 1934-42. Lecturer in Law 1942- . The George Washington University.

Subject: Moot Court

## THE DEAN'S COUNCIL\*

Carville Dickinson Benson  
Charles Sager Collier

Saul Chesterfield Oppenheim  
Hector Galloway Spaulding

## GENERAL INFORMATION

### INTRODUCTORY

The George Washington University Law School, established in 1826, discontinued and reorganized in 1865, is the oldest law school in the District of Columbia. Its course of instruction is planned to fit its graduates for the practice of law in any of the states of the United States or in foreign countries, the law of which is based on the Anglo-American legal system. It is also designed to prepare students for public service as lawyers in the Federal Government or the governments of the states. In 1900 the School took part in the organization of the Association of American Law Schools and it has been a member of the Association since that time. The School is approved by the Council of Legal Education of the American Bar Association.

### ADJUSTMENTS TO THE WAR EMERGENCY

The war emergency has increased the demand for men and women with legal training. To enable students to secure a maximum of legal training in the time available, the Law School's plan of instruction has been modified. The work of the year is organized into three terms known as the fall term, winter term, and summer term. The work undertaken in any one term may be completed by the end of that term. The summer term constitutes a full term of fifteen weeks. It is divided into two sessions so that work undertaken during one session may be completed during that session.

Mid-term examinations will be given in full subjects, that is those given four hours a week during a term. Students who pass these examinations successfully will be given credit for the first half of such subjects in case they are compelled to leave the School without completing the term. Such students will be permitted to register for the second half of such subjects when they return to the School.

\* The President of the University and the Dean of the Law School are ex officio members of the council.

The Dean's Council will endeavor in every way consistent with proper educational standards to approve such special arrangements as may be necessary to meet individual problems arising from the demands made upon students by the war. Students who have such problems are requested to submit them to the Dean of the Law School for the full and immediate consideration of the Dean's Council.

In the field of public law, made doubly important by the war emergency, courses will be offered in Administrative Law, Constitutional Law, Trade Regulation, Labor Law, International Law, and Government Corporations.

During the fall term a course entitled War Law will be offered. This course, designed to meet more specifically the needs of the war emergency, will consist of two parts: Military Law and War Contracts. Students may register for an individual part.

#### THE LIBRARY

The Law Library of 23,000 volumes contains the official reports of the decisions of the courts of last resort of all the states prior to the National Reporter System and of fourteen states complete to date; the National Reporter System, complete; the reports of the United States Supreme Court and lower federal courts, and the reports of federal administrative agencies; Shepard's Citations for the units of the Reporter System; the English Reprint and English Law Reports; the United States Statutes; the United States Code, Annotated, and the Federal Code, Annotated; reasonably complete sets of statutes of all of the states; the English statutes; the principal English and American digests and encyclopedias; collections of special reports and annotated cases; and the leading textbooks, casebooks, and legal periodicals.

The Library is open from 9:00 A.M. to 11:00 P.M. each class day (Saturday, 9:00 A.M. to 6:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday.

#### THE LAW REVIEW

*The George Washington Law Review*, published by the University, is edited by the Faculty and students of the Law School. It is devoted exclusively to state and federal public law. The location of the University in the National Capital, where the primary sources of federal public law may be observed in operation, affords an unexcelled opportunity for specialization in this field.

The *Review* is edited by a faculty editor-in-chief, a faculty board of associate editors, a board of departmental advisory editors, and a board of student editors. The student editors are chosen each year on the basis of scholarship.



## RESEARCH IN PUBLIC LAW

Washington, the capital of the Nation, furnishes unsurpassed advantages for research in the fields of public law. In it are the offices of the major executive departments, the Congress, the Supreme Court of the United States, and four lower federal courts. In the executive departments and among the many independent establishments of the Federal Government there have been estimated to be between seventy-five and one hundred agencies, the activities of which involve the various branches of public law, particularly administrative law. The student of public law can study at first hand the work of these administrative agencies. He also has available as sources for investigation their records of administrative adjudications. In addition there are more than double the number of law offices in the various departmental and independent agencies the principal business of which is public law.

Research in public law will be conducted under the supervision of members of the faculty. The fields of public law covered will be administrative law, constitutional law, international law, municipal and government corporations, and trade regulation. The purpose of this research is to furnish means for training specialists in public law, either as government lawyers or as lawyers representing individuals or corporations in cases in which the Government is a party, and to assist in the analysis, clarification, formulation, and improvement of public law, substantive and procedural.

Candidates for the graduate degrees in the Law School and seniors who are candidates for the degree of Juris Doctor are eligible to pursue this work. Other students may be admitted with the special permission of the professor in charge.

As part of the research in public law, the Law School has conducted conferences on specific problems in the field. Leading experts were brought together for the following conferences, the results of which were published in *The George Washington Law Review*: Government Corporations, July 1938; Administrative Law, February 1939; Constitutional Law, March 1940; Labor Relations Regulation, March 1941. Because of the war no conferences were held in 1942.

## THE STUDENT BAR ASSOCIATION

Every student in the Law School is required to be a member of the Student Bar Association. This is organized to enable the student to become better acquainted with problems of the profession, to develop better professional ideals, and to bring about closer contact with members of the profession engaged in active practice of the law.

The work of the Student Bar Association is carried on by various committees and by group and general meetings of a professional and



social nature. From time to time lectures are given by outstanding authorities on legal and professional problems.

Each member of the Student Bar Association receives a subscription to *The George Washington Law Review*.

#### PRACTICE AND PRACTICE COURT

The curriculum is planned to include such training in the fundamentals of practice as is feasible in a law school. Classroom instruction is conducted in the theories of pleading and procedure, trial and appellate practice, and evidence. This instruction includes grounding in the principles of the new Federal Rules of Civil Procedure. In addition each senior student is required to participate in the work of the practice or Moot Court. This includes trying a specified number of cases, both as a senior counsel and junior counsel. For students who are planning to practice patent law, a special section of the court is conducted devoted exclusively to the trial of patent cases.

#### ORDER OF THE COIF

The Order of the Coif, a national honor society with chapters in thirty-seven law schools, aims "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship". The George Washington University Chapter was established in 1926. Members are elected each year from the highest-ranking ten per cent of the graduating class of the Law School.

#### ADMISSION

##### APPLICATION FOR ADMISSION

An applicant for admission must obtain from the Office of the Director of Admissions an application blank which he must fill out completely and return.

A recent photograph, with signature, of the applicant must be attached to the blank.

*To insure prompt action, applications should be filed not later than July 1 for the fall term, January 1 for the winter term, and May 1 for the summer term.*

The applicant must request the registrar of each higher institution previously attended to mail directly to the Office of the Director of Admissions the transcript of his record, *even though credits were not earned*, together with an honorable dismissal from the institution last attended. The student must be in good standing as to scholarship and conduct, and must be eligible to return to the previously attended institutions in the term for which he or she seeks admission to The George Washington University.

## For the Degrees in the Professional Course

*Bachelor of Laws.*—Men and women will be admitted as candidates for this degree provided there have been filed in the Office of Admissions official transcripts of record showing the satisfactory completion of not less than two years of college work which is defined as one-half of the four-year course of study acceptable for a bachelor's degree in an approved college or university. This requirement has been adopted for the period of the present national emergency.

*Juris Doctor.*—The degree of Bachelor of Arts or the equivalent from an approved college or university is required.

## ADVANCED STANDING

Advanced standing toward the degree of Bachelor of Laws may be granted for work successfully completed in other law schools which are members of the Association of American Law Schools.

Applicants for admission with advanced standing must file certified transcripts of record showing high school, college, and law credits. The right is reserved to refuse such credit, in whole or in part, or to allow it conditionally or after examination, and credit given may be withdrawn for subsequent poor work. No student admitted with advanced standing will be recommended for the degree of LL.B. until he has completed in this School at least one full year of residence and passed successfully twenty-eight credit hours with the required average for the degree. No student will be admitted who has been in attendance at another law school and who is ineligible, because of poor scholarship, to return to that school.

Students planning to attend summer school sessions at other law schools and desiring to use credits obtained at such schools in their course at this Law School must first have the courses they wish to take approved by the Dean. In no event will credits be recognized in excess of those which might be obtained in a similar period in this School.

Advanced standing toward the degree of Juris Doctor for work in other law schools will not be granted.

## For the Degrees in the Graduate Course

*Master of Laws.*—Applicants must show the satisfactory completion of not less than two years of college work in an approved college or university and must have received the degree of Bachelor of Laws, or an equivalent degree, from an approved law school.

*Doctor of Juridical Science.*—The following are required: (1) the degree of Juris Doctor from this Law School; or (2) the degree of Bachelor of Arts from an approved college, the degree of Bachelor of Laws or the equivalent, earned with high rank, from an approved law

school, outstanding capacity for scholarly work in the field of law, and acceptance as a candidate by the Dean's Council of the Law School.

### Unclassified Students

A person eligible for admission to regular standing but not a candidate for a degree may, at the discretion of the Dean, be admitted as an unclassified student.

### REGISTRATION

Before attending classes each student must present himself in person for registration. No student will be registered in the Law School until proper credentials have been filed and approved (see "Admission", above).

Registration is for the term or session only.

A late-registration fee of \$5 will be charged each student who is permitted to register after the regular registration days. No registration may be made after the first two weeks of a term.

Registration may be changed only with the permission of the Dean.

### FEES AND FINANCIAL REGULATIONS

University fee, for each term or for any part thereof.....	\$8.00
For each session of the summer term or any part thereof.....	4.00
Tuition fee, for each credit hour.....	8.00
For the degree of Doctor of Juridical Science:	
For work leading to and including the final examinations.....	240.00
Student Bar Association fee, for each term, or any part thereof except the summer term.....	2.00
Graduation fee.....	20.00
Fee for special examinations, for each subject.....	5.00
Late-registration fee, charged each student who fails to register within the designated period.....	5.00
Service fee for late payment of tuition, see "Payment of Fees".....	1.00
Reinstatement fee, charged each student who is reinstated after being suspended for delinquency in fees.....	5.00
Fee for printing and filing summary of doctoral thesis.....	50.00

### UNIVERSITY FEE

Payment of the University fee covers all of the expenses incident to registration and, in addition, secures the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the services of the Placement Office; (3) the use of University library facilities, except as otherwise designated; (4) gymnasium privileges; (5) admission to all athletic contests, unless otherwise specified; (6) subscription to the *University Hatchet*, the student newspaper; (7) admission to University debates; (8) medical attention and hospital services as described under "Health Administration", pages 23-24. These privileges, however, with the exception of the issuance of transcripts.



terminate, and a student is no longer in residence, when he withdraws or is dropped from the University.

#### PAYMENT OF FEES

All fees are payable at the Office of the Cashier, 725 Twenty-first Street NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each term are due and payable in advance at the time of registration.

Subject to the approval of the Comptroller, a student may sign a contract for term charges, except for the University fee and other fees payable in advance, permitting payments as follows:

*Fall Term.*—One third at the time of registration, plus the University fee and deposits; one third on November 3; one third on December 3.

*Winter Term.*—One third at the time of registration, plus the University fee and deposits; one third on March 3; one third on April 3.

A student who fails to meet payments when due, on the third day, but who pays his fees between the fourth and tenth days, inclusive, of the month in which payment is due is charged a service fee of \$1. A student who fails to meet payments by the tenth day of the month in which payment is due will be suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5. A suspended student may not be reinstated for the term after two weeks from the date of suspension. Applications for reinstatement are to be made to the Dean.

#### WITHDRAWALS AND REFUNDS

Application for withdrawal from the University or for change in class schedule must be made in person or in writing to the Dean. Notification to an instructor is not an acceptable notice.

In authorized withdrawals and changes in schedules, financial adjustments will be made as follows:

*Fall Term.*—Withdrawal dated on or before November 1, cancellation of the second and third payments; withdrawal dated on or before November 30, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to November 30.

*Winter Term.*—Withdrawal dated on or before February 29, cancellation of the second and third payments; withdrawal dated on or before March 31, cancellation of the third payment. No refund or reduction will be allowed on a withdrawal dated subsequent to March 31.

In no case will the University fee or any part of an initial payment of fees be refunded, and in no case will tuition be reduced or refunded because of nonattendance upon classes.

Payment applies only to the term for which a registration charge is



incurred and in no case will this payment be credited to another term. A student granted "war leave" during the term will be credited with tuition payments made prior to the granting of such leave, which credit will be applicable toward the completion of the courses for which he was registered.

Authorization to withdraw and certification for work done will not be given a student who has not a clear financial record.

#### SCHOLARSHIPS, PRIZES, LOAN FUNDS

*Charles Worthington Dorsey Memorial Scholarship.*—This scholarship, established as a memorial to Charles Worthington Dorsey, Bachelor of Laws '81, Master of Laws '82, is awarded upon the recommendation of the Faculty of the Law School to a needy and promising graduate of Columbian College or other division of the University, with a Bachelor of Arts or other equivalent degree, who has maintained an average of B as an undergraduate student and who desires to pursue the study of law as a full-time student. The scholarship covers tuition for the course leading to the first degree from the Law School, Bachelor of Laws or Juris Doctor, provided that the holder maintains an average of B. The right is reserved to suspend the benefits of the scholarship for cause at any time. The scholarship is awarded ordinarily once every three years.

All other scholarships are administered by the University Committee on Student Loans and Scholarships. Application should be made to the Registrar of the University.

The following prizes are awarded annually in the Law School:

*Ellsworth Prize.*—The Ellsworth Prize of \$25, established by the late Mr. Fritz von Briesen, is awarded to the student doing the best work in the subject of Patent Law Practice. It was awarded in 1941-42 to Victor Myer.

*John Bell Larner Prize.*—This prize, established by the bequest of John Bell Larner, consists of a medal which is awarded annually to that member of the graduating class in the Law School who attains the highest average grade in the entire course for the degree of Bachelor of Laws. It was awarded in 1941-42 to Jack Newton Hays, Jr.

*John Ordronaux Prizes.*—These prizes were established in 1900 by the bequest of John Ordronaux. The amount of \$35 is awarded annually to the student in the Law School who has attained the highest average grade in the first year, full time, regular course; and \$35 to the student who has attained the highest average grade in the second-year, full-time regular course. The former was awarded in 1941-42 to John Harn Jones and the latter to Hilda Aronson Asia.

Through the generosity of friends of the University a number of loan funds are available to students in the Law School. Among them is the Henry Strong-William A. Maury Loan Fund established by the Henry

Strong Educational Foundation in memory of Henry Strong and William A. Maury. Application for loans should be made to the Comptroller of the University.

### REGULATIONS

*Students in the Law School are subject to, and are expected to familiarize themselves with, the general University regulations stated in the University Catalogue.*

### HOURS OF INSTRUCTION

Primarily for the accommodation of employed students, the regular course may be taken in classes held from 6:20 to 8:00 P.M.

### ATTENDANCE

Regular attendance on classes is necessary for successful work. A student who is deficient in class attendance in any subject may, by action of the Dean's Council, be barred from taking the examination in that subject.

### RESIDENCE REQUIREMENTS

A year's attendance in the evening classes is counted as residence for three fourths of a year. A student admitted with advanced standing must complete at least one year of residence in this School and pass twenty-eight credit hours with the required average for the degree.

### GRADES

At the end of each term each student is given a letter grade in each subject completed and a letter grade indicating the average for the term.

Grades are indicated by the letters *A*, excellent; *B*, good; *C*, satisfactory; *D*, poor—below standard for graduation; and *F*, failed.

The grades *A*, *B*, *C*, and *D*, mean that the work has been successfully completed and credit given for the subjects.

*F*, failed, means that no credit will be given. To obtain credit the student must repeat the subject; but a student who has obtained an average of *C* in the work of the academic year and received a grade of *F* in only one subject may take the next regular examination in that subject, and if on such reexamination he obtains a passing grade he will be given credit in the subject.

### EXAMINATIONS

Written examinations are held in the middle of the fall and winter terms in subjects given four hours a week and at the end of each term in all subjects. Every student is required to take the regular examinations in the subjects pursued, unless excused by the Dean. A student who, with the consent of the Dean, does not take the examination in a subject with the class in which he is enrolled may take the next regular examination given in the subject.

No special examinations will be given; except that, upon written application to the Dean's Council, showing sufficient cause, a candidate for a degree at a convocation before the next regular examination, if he would be entitled to take a postponed examination, may, at the discretion of the Dean's Council, be given a special examination.

#### EXCLUSION AND PROBATION FOR POOR SCHOLARSHIP

A student who during an academic year fails in courses aggregating eight or more credit hours will be excluded. Such a student is not eligible to be registered in the Law School or to attend classes in the next academic year. He may, however, be admitted to the regular examinations in that academic year in those subjects in which he has made a grade below passing, and if he receives a grade of passing in these subjects with an average sufficient to make his general average not less than *C*, he will be reinstated at the beginning of the academic year next succeeding the passing of these examinations.

A student not subject to exclusion under the foregoing rule who at the end of an academic year has failed to maintain a general average of at least *C*, will be on probation during the next academic year. A student on probation may at the discretion of the Dean be required to reduce his program of study. A student on probation will be excluded at the end of the probationary year unless he has made grades sufficient to give him a general average of at least *C*.

The general average of a student includes all the grades in all the subjects taken while he is in the Law School working for a particular degree. When a subject is repeated or a reexamination is taken, both the first grade and the subsequent grade or grades are counted in the general average.

In special cases in which it is clear that the student's failure does not indicate lack of ability to pursue the study of law, the student who has become subject to exclusion may be readmitted by vote of the Dean's Council of the Law School.

No student is put on probation or excluded because of the work of one term only, or as the result of a program of less than four hours a week during the academic year.

#### CLASSIFICATION OF STUDENTS

Students are divided into classes on the completion of credit hours as follows: first year, one through twenty-eight; second year, twenty-nine through fifty-six; third year, fifty-seven or more.

#### RIGHT TO DROP STUDENTS

The right is reserved by the University to drop any student from the University, or from any class or classes, whenever, in the interest of the



student or the University, the University Administration deems it advisable to do so.

## STUDENT LIFE

### LIVING ACCOMMODATIONS

Applications for room reservations should be made well in advance. Forms for application, together with detailed information may be obtained from the Director of Personnel Guidance. The prices stated below are subject to change without notice.

*Women Students.*—Women students under twenty-one years of age who carry twelve or more credit hours of academic work must have their residences approved by the Director of Personnel Guidance before their registrations can be completed.

The Hattie M. Strong Residence Hall: single rooms with breakfast and dinner are \$52 a month; double rooms with the same service are \$45.50 a month a person.

Staughton Residence Hall: single rooms are \$25 a month; double rooms are \$18 a month a person.

*Men Students.*—Limited dormitory facilities are provided for men. Single rooms with breakfast and dinner are \$52 a month. The men's fraternities have houses which provide living accommodations for their members.

### PLACEMENT OFFICE

The Placement Office is maintained to assist graduates and students in finding positions for which their college work has prepared them, and to cooperate with employers who wish to fill vacancies. Enrollment is open to alumni members and students of the University without charge for placement.

### Student Employment

An employment service is operated to assist the self-supporting student in finding employment.

The prospective student who expects to earn any part of his expenses and who does not have a definite appointment to a position before coming to Washington should have the means of support for at least one term.

Many out-of-town students secure positions in the departments of the Government in Washington by taking the United States Civil Service examinations in their home states. The hours of employment permit them to pursue a college course in the late afternoon.

### HEALTH ADMINISTRATION

The payment of the University fee entitles the student to health services hereinafter described. Through reports from the students and University officials, the University attempts to keep informed as to all cases of illness



among its students. This service is primarily diagnostic in its intent. It also provides first aid in the event of an emergency.

Medical privileges include: (1) the physical examination of every student entering from secondary school; (2) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examination; (3) hospitalization, including board, medicine, and nursing in the University Hospital for not more than two weeks during a school year—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, two weeks) is also to be determined by the Director of Health Administration.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of the University registration fee.

The student is allowed, if he so desires, to engage physicians and nurses of his own choice, but when he does so he will be responsible for the fees charged.

Rules: (1) The Director of Health Administration is empowered to limit or deny the medical benefits where, in his discretion, a student has by his misconduct or breach of the rules of the University, made himself ineligible; (2) the Director of Health Administration has authority to determine the necessity and length of hospitalization; (3) a student who has severed his connection with the University is ineligible for medical benefits; (4) a student intending to train for an athletic team is required to pass a thorough examination at the beginning of each term; (5) the above regulations apply also during the summer term of the University.

The University is not responsible for injuries received in inter-collegiate or intra-mural games, or in any of the activities of the department of physical education.

## THE DEGREES

### IN THE PROFESSIONAL COURSE

These degrees are Bachelor of Laws (LL.B.) and Juris Doctor (J.D.).

#### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF LAWS

To be recommended for this degree the student must have completed a residence period of not less than three academic years on a full-time basis (four years on a part-time basis) in an approved law school; the last year to be in this School; and eighty credit hours with a general average of at least C, in courses described on pages 27-32, including the course in Moot Court.

*Combined Degrees of Bachelor of Arts and Bachelor of Laws.*—A candidate for the combined degrees of Bachelor of Arts and Bachelor of Laws must: (1) complete three years of satisfactory college work; (2)

fulfill the residence requirement of at least thirty credit hours of Columbian College, the School of Government, or the School of Education; (3) obtain the approval of the Dean of the college concerned at the time of entering the Law School; (4) complete, with a grade of middle C, the work of the first year in the Law School. The degree of Bachelor of Arts will be conferred at the end of the first year in the Law School, provided the above conditions have been satisfied. The degree of Bachelor of Laws will be conferred upon the satisfactory completion of the law course. Professional work taken at another institution will not satisfy the major requirement for the combined degrees.

*Combined Degrees of Bachelor of Science in Engineering and Bachelor of Laws.*—For those students who desire to enter the branches of the legal profession in which a background in engineering is necessary a six-year curriculum is offered, leading to the combined degrees of Bachelor of Science in Engineering and Bachelor of Laws. A candidate for the combined degrees must conform to the residence and scholarship requirements of the School of Engineering throughout the period of preparation for the degree in engineering. His scholarship level for the junior and senior years must be acceptable to both the School of Engineering and the Law School. During the junior and senior years he must complete: (1) the required courses in engineering, (2) the 28 credit hours of courses required in the first year of the Law School, and (3) such electives as he needs to satisfy the 144 credit-hour requirement for the degree in engineering. Upon the satisfactory completion of the senior year, the degree of Bachelor of Science in Engineering will be conferred. The student will then continue his studies in the Law School; upon the satisfactory completion of which the degree of Bachelor of Laws will be conferred.

#### REQUIREMENTS FOR THE DEGREE OF JURIS DOCTOR

This degree is conferred as a recognition of the completion at the George Washington University Law School, with high rank, of the full professional course of not less than three full years (four years on a part-time basis) including experience in research and legal authorship.

To be recommended for this degree the student must have completed: (1) a residence period of not less than three academic years on a full-time basis (four years on a part-time basis); (2) eighty credit hours with a general average of at least *B*, in courses described on pages 27-32, including the course in Moot Court and either the course in Comparative Law or one of the graduate seminars; and (3) one year of acceptable service on the board of student editors of *The George Washington Law Review*, election to which is subject to regulations laid down by the Faculty.

#### HONORS

The degree of Bachelor of Laws or of Juris Doctor "with distinction" will be awarded the student who obtains a general average of *A* in the work for the degree.

## IN THE GRADUATE COURSE

These degrees are Master of Laws (LL.M.) and Doctor of Juridical Science (S.J.D.)

## REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have completed satisfactorily twenty credit hours of subjects in the graduate curriculum. In individual cases, third- or fourth-year subjects listed in the professional curriculum may be included in the program of study. All requirements for this degree must be completed in a period not exceeding two academic years.

REQUIREMENTS FOR THE DEGREE OF DOCTOR  
OF JURIDICAL SCIENCE

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have pursued a course of study and research designated by his consultative committee and approved by the Dean's Council of the Law School. At the conclusion of his first year of residence or at such other time as the consultative committee may set, the candidate must pass an oral examination in those fields of study selected by the consultative committee. The examination shall be conducted by the consultative committee and such other members of the faculty as may be assigned by the Dean.

Not later than the date specified in the University calendar the candidate must submit to the Dean one typewritten original and two legible and complete carbon copies of his thesis in its final form and also a typewritten summary of the thesis consisting of not more than 2,500 words. To be acceptable the thesis must, in the opinion of the examining committee, constitute a substantial contribution to the field of law concerned and be suitable for publication. Additional information will be supplied by the Dean.

The summaries of accepted theses will be printed in a volume forming a number of the University BULLETIN. The successful candidate for the doctorate is required, before receiving his degree, to pay a fee to cover the expense of printing the summary of his thesis.

A field of study may be selected from the following: Administrative Law, Conflict of Laws, Constitutional Law, Federal Jurisdiction, Corporations, History of Law, International Law, Labor Law, Municipal Corporations, and Trade Regulation.



## COURSES OF INSTRUCTION

The courses of instruction listed below are subject to change. The University reserves the right to withdraw any course announced.

The number which precedes the name of a course indicates the term in which that course is offered. An odd number indicates that the course is offered in the fall term; an even number, that it is offered in the winter term; and a double number (e.g., 241-42), that it begins in the fall and continues in the winter term.

First-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third year courses, from 301 to 400; and graduate courses, from 401 to 500.

The number of hours of credit given for the satisfactory completion of a course is indicated in parentheses after the name of the course. Thus, a year course giving two hours of credit each term is marked (2-2), and a term course giving two hours of credit is marked (2).

### 105 *Civil Procedure* (4)

Benson

Function and composition of pleadings, including their relation to proof. Emphasis is upon reforms as exemplified by modern code provisions and the Federal Rules of Civil Procedure. Clark, *Cases on Pleading and Procedure*, 2d ed. Mon. and Thurs., 6:20 to 8:00 P.M.

### 111 *Contracts* (4)

Spaulding

Promissory obligation: offer and acceptance, consideration, statute of frauds, formal instruments, rights of third parties, assignments, and joint obligations. Williston, *Cases on Contracts*, 4th ed. Mon. and Thurs., 6:20 to 8:40 P.M.

Also summer term 1943

### 123-24 *Criminal Law and Procedure* (2-2)

Kirkland

Elements of criminal liability; specific crimes; combinations of persons in crime; criminal procedure. Harbo, *Cases and Materials*. Wed., 6:20 to 8:40 P.M.

### 129 *Judicial Process* (4)

Benson

Introduction to the study of law: development of English courts, procedure, legal profession, and law books; organization of American courts and legal profession; the role of law books. Time and place of holding court, venue, service of process, appellate procedure, and a study of judgments (direct and collateral attack, res judicata, state debts, law of the case, and judgment notwithstanding the verdict. Brown and Fryer, *Readings on the Study of Law and the American Legal System*. Arnold and James, *Cases on Trials, Judgments and Appeals*. Tues. and Fri., 6:20 to 8:00 P.M.

### 134 *Property I* (4)

Benson

Concepts of property, possession and ownership, and of legal relations with respect to interests and documentary intangibles created by



gift, sale, pledge, lien, bailment, etc. Flower, Cases on Property. Vol. II. Fiver, Readings on Personal Property, 3d ed. Mon. and Thurs., 6:20 to 8:00 P.M.

137 *Property II* (4)

Spanning

Real property: introduction; estates, seisin, landlord and tenant; future interests at common law and under the statutes of use and merger; elementary study of remainder and power; adverse possession; prescription; natural rights. Kirkwood, Cases on Property. Tues. and Fri., 6:20 to 8:00 P.M.

142 *Torts* (4)

Van Alst

Civil liability for harms to legally protected interests. Thayer, Cases on Torts. Tues. and Fri., 6:20 to 8:00 P.M.

Also summer term 1943 (4)

203 *Agency* (2)

McIntire

Problems of agency in the conduct of business. Steffen, Cases on Agency.

Summer term only 1943.

213 *Constitutional Law I* (4)

Cole

Historical introduction to American constitutional law; principles and methods in dealing with questions of constitutionality; nature of justiciable controversies; distribution of the separate powers; powers of the National Government separately considered; the federal system; relation of the state courts and the federal courts. Dodd, Cases on Constitutional Law, 3d ed. Mon. and Thurs., 6:20 to 8:00 P.M.

232 *Equity* (4)

Spanning

Specific performance of contracts; equitable conversion; trusts; frauds; mortgages; conditions; damages; equitable remedies; jurisdiction of an equity court; effect of decrees. Cook, Cases on Equity, 14th ed. Mon. and Thurs., 6:20 to 8:00 P.M.

241 *Property III* (2)

Oppenheim

Conveyances, rents, covenants, profits, Easements, covenants, mortgages, the land, and recording. Kirkwood, Cases on Conveyances. Tues., 6:20 to 8:00 P.M.

242 *Evidence* (4)

Bens

Functions of court and jury; witnesses, hearsay, expert and circumstantial evidence; proof of authenticity; and contents of documents. Morgan and Maguire, Cases on Evidence, 2d ed. Tues. and Fri., 6:20 to 8:00 P.M.

246 *Negotiable Instruments* (2)

Oppenheim

Bill of exchange, promissory notes and checks, estoppel. Negotiable Instruments Law. Britton, Cases on Negotiable Instruments. Tues., 6:20 to 8:00 P.M.

251 *Quasi Contracts* (2)

Legal remedies for restitution of benefits obtained or conferred by performance of contract, misrepresentation, mistake, and coercion. Patton, Cases on Restitution. (Not offered in 1943-44.)

- 254 *Wills* (2) Oppenheim  
Formation and revocation of wills; testate and intestate succession. *Merton and Atkinson, Cases on Wills and Administration*. 2d ed. Wed., 6:20 to 8:00 P.M.
- 304 *Administrative Law I* (4) Collier  
Legislative attitude for administrative bodies; judicial control of administrative action; public utilities, taxation, alien laws. Federal Trade Commission, workmen's compensation, etc. *Frankfurter and Davison, Cases on Administrative Law*. Mon. and Thurs., 6:20 to 8:00 P.M.
- 312 *Business Associations I* (4) Spaulding  
Forms of business associations; legal requirements as to contributions of capital; powers and rights of corporations, corporate officials, and shareholders. *Frey, Cases on Business Associations*. Tues. and Fri., 6:20 to 8:00 P.M.
- 315 *Conflict of Laws* (4) Van Vleck  
Study of cases involving foreign elements; principles of jurisdiction and limitations upon its exercise; procedure, torts, workmen's compensation, contracts, property, family law, administration of estates, business associations. *Cochran, Dowling, Goodrich, and Griswold, Cases on Conflict of Laws*, 2d ed. Tues. and Fri., 6:20 to 8:00 P.M.
- 321-22 *Current Decisions* (2-2) Oppenheim  
Reported of, and limited to, members of the student staff of the *Law Review*.
- 326 *Federal Jurisdiction* (2) Collier  
Constitutional origins and power of federal courts; sources of law applicable to them; business and extent of jurisdiction of federal courts. Case book to be announced. Wed., 6:20 to 8:00 P.M.
- 332 *Labor Law* (2)  
Legality of collective labor action; strike, boycott and pickets used; strike, picketing, boycott, trade agreements, labor injunctions, scope of federal jurisdiction. (Not offered in 1943-44.)
- 333 *Legislation* (2)  
A study of the problems and principles of legislation. (Not offered in 1943-44.)
- 335-36 *Moot Court* (2-2) Gordon, Craighill, Morris, Edgerton  
Open only to students who have completed fifty credit hours. Prerequisite: Law 1-5 and 242. Wed., 7:20 to 8:00 P.M.
- 345-46 *Patent Law* (2-2) Sutton  
Substantive patent law, patentability, revision, use, and enforcement of patents, Patent Office practice, Rules of Practice, appeal and interference procedure. Mon., 6:20 to 8:00 P.M.
- 349-50 *Patent Moot Court* (2-2) Coe  
This course may be elected instead of Law 345-36 to satisfy the Moot Court requirement. Both subjects may not be counted toward a degree. Wed., 6:20 to 8:00 P.M.

- 351 *Domestic Relations* (4) Spaulding  
 Marriage, annulment, and divorce; rights of husband and wife; rights of parent and child; infants; conflict of laws involving problems of marriage validity and involuntary divorce. Madden and Compton, *Cases on Domestic Relations*.  
 Summer term only 1943.
- 353 *Public Utilities* (2) Collier  
 Limits of regulation of businesses affected with public interests; ascertainment of value of property used for the public service and the fixing of adequate rates of return. Robinson, *Cases on Public Utilities Regulation*. Wed., 6:20 to 8:00 P.M.
- 357 *Sales* (2) Oppenheim  
 Williston and McCurdy, *Cases on Sales*. Wed., 6:20 to 8:00 P.M.
- 363 *Security Transactions* (4) Benson  
 Security interests in real and personal property, their creation, transfer, enforcement, and extinguishment, together with security problems in the field of suretyship and bankruptcy. Sturges, *Cases on Credit Transactions*, 2d ed.  
 Summer term only 1943.
- 371-72 *Taxation* (2-2) Collier  
 Emphasis on the federal estate tax and the federal income tax. Attention given state inheritance and income taxes. Problem of jurisdiction to tax, construction of tax statutes, methods of making review of administrative actions in the tax field, modern excise taxes on business concerns. Magill and Maguire, *Cases on Taxation*, 1941 ed. Fri. 6:20 to 8:00 P.M.
- 376 *Trade Regulation I* (4) Oppenheim  
 Unfair trade practices, combination and monopoly at common law and under various statutes; trade marks; business torts; Sherman Anti-trust Act; Federal Trade Commission and Clayton Acts; marketing, price and patent practices; Fair Trade Acts; mergers; trade associations; remedies. Oppenheim, *Cases on Trade Regulation*.  
 Summer term only 1943.
- 382 *Trusts* (4) Mc  
 Nature, creation, elements, administration, termination, modification of trusts; charitable, resulting, construction trusts; liabilities of and to third persons; transfer of beneficiary's interest. Scott, *Cases on Trusts*, 3d ed.  
 Summer term only 1943.
- 383 *Military Law* (1) King  
 Mon., 6:20 to 7:10 P.M.
- 387 *War Contracts* (1) Ellis  
 Mon., 7:10 to 8:00 P.M.
- 404 *Administrative Law II* (4)  
 Research seminar course in special problems, including the study of specific administrative agencies, federal or state. (Not offered in 1943-44.)



- 405 *Admiralty* (2) Alden  
Federal and state jurisdiction, jurisdiction over waters, craft, contracts, torts, crimes, in equitable matters, etc.; laws applicable to maritime workers and maritime liens. Sayre, *Cases on the Law of Admiralty*. Mon., 6:20 to 8:00 P.M.
- 411 *Business Associations II* (4)  
Seminar: study of the historical background and functioning of the statutes involved in the work of the Securities and Exchange Commission. (Not offered in 1943-44.)
- 416 *Comparative Law* (2) Murdock  
Historical and comparative study of some of the institutions and principles of the civil law (law of South and Central America and most of the Continent of Europe) compared with those of the common law; the influence of the former upon the latter. Text to be announced. Mon., 6:20 to 8:00 P.M.
- 421 *Constitutional Law II* (4)  
Research seminar in contemporary problems in constitutional law; special emphasis on interstate-commerce cases and due process of law. (Not offered in 1943-44.)
- 426 *Government Corporations and Instrumentalities* (2) McIntire  
Municipal corporations: organization, powers, functions, and legal relations of local governmental units. Federal corporate agencies: organization, powers, functions, and legal relations of functional governmental units separately incorporated. A research seminar. Thurs. 6:20 to 8:00 P.M.
- 431 *International Law* (2) Murdock  
Customary and treaty rights and duties of states; diplomatic and consular agents, treaty interpretation; nationality laws, international courts; claims procedure; war; neutrality. Hudson, *Cases on International Law*, 2d ed. Tues., 6:20 to 8:00 P.M.
- 434 *Interstate Commerce Commission Law and Procedure* (2)  
Interstate Commerce Act, the Interstate Commerce Commission; practice and procedure before the Commission. Miller, *Cases and Materials on I.C.C. Law and Procedure*. (Not offered in 1943-44.)
- 435 *Jurisprudence* (2)  
History of jurisprudence; schools of jurists, particularly the nineteenth-century schools; sociological jurisprudence; theories of justice; the nature of law; law and morals; law and the state; the scope and subject matter of law; sources and forms of law; the traditional element; analysis of general legal conceptions. (Not offered 1943-44.)
- 438 *Labor Relations Regulation* (2)  
Law of relations between workers and management under the National Labor Relations Act. Ward, *Cases on Labor Relations Regulation*. (Not offered in 1943-44.)



**441 *Municipal Corporations* (2)**

Melvin

Municipal corporations: organization, powers, functions, and regulations of local governmental units. Trade and Municipal Corporations. Thurs., 6:20 to 8:00 P.M.

**452 *Trade Regulation II* (4)**

A research seminar course in specific problems of trade regulation.  
(Not offered in 1943-44)

# DEGREES CONFERRED

1942-43

## BACHELOR OF LAWS

JUNE 3, 1942

Andrews, Arden Leedy	D.C.	Harris, Hugh Byron	N.D.
Andrews, I. R.	Ohio	A.B. 1941, The George Washington University	
B.S. 1935, A.M. 1938, University of		Lawrence, Eugene	W.Va.
Indiana		A.B. 1935, Marshall College	
Andrews, Paul Robert	Nebr.	Johnson, R. L.	Utah
A.B. 1941, University of Kansas		A.B. 1935, Cornell University	
A.M. 1941, University of Wisconsin		Kennedy, Arthur William	Va.
Paulsen, R. R.	N.Y.	Ph.D. 1937, Ohio State University	
B.S. 1932, Cooper Union		Lehman, Henry Howard	Va.
M.F.A. 1937, Polytechnic Institute of		Lehman, Henry M.	N.Y.
Brooklyn		Ph.D. 1935, College of the City of	
Andrews, J. C.	Mass.	New York	
A.B. 1935, Massachusetts State College		Lehman, Henry	N.Y.
Andrews, William L. W.	Ohio	B.S. 1935, M.S. 1937, College of the	
A.B. 1931, A.M. 1934, The George		City of New York	
Washington University		Lehman, Arthur	N.Y.
Andrews, Robert Young	Utah	B.S. 1931, College of the City of	
A.B. 1935, University of Utah		New York	
A.M. 1937, same		A.M. 1935, The George Washington	
A.B. 1935, The George Washington		University	
University		Ph.D. 1941, Columbia University	
Andrews, H. H. K.	Mass.	Morgan, Mary Thomas	Va.
A.B. 1935, West Virginia University		Morgan, Paul Stanley	N.Y.
Andrews, H. H. K.	Va.	B.S. 1935, F.F. 1937, City	
Andrews, H. H. K.	D.C.	College of the City of New York	
B.S. 1935, M.F.A. 1937, Massachusetts		Morgan, Paul Stanley	N.Y.
Institute of Technology		A.B. 1937, Yale University	
Andrews, H. H. K.	Mass.	Morgan, Robert L.	Nebr.
A.B. 1935, Rutgers College		Morgan, Arthur William	Ky.
Andrews, H. H. K.	Me.	A.B. 1935, Georgetown College	
Andrews, H. H. K.	Ariz.	Nelson, Eugene James	Me.
A.B. 1935, Arizona State College		B.S. 1935, College of the University of	
Andrews, H. H. K.	Nebr.	Nebraska	
A.B. 1935, Nebraska Wesleyan Uni-		Nelson, Edward Dean	D.C.
versity		A.B. 1935, The George Washington	
Andrews, H. H. K.	Ill.	University	
A.B. 1935, Illinois College		University of Illinois	Me.
Andrews, H. H. K.	W.Va.	A.B. 1935, Liberty College	
A.B. 1935, West Virginia		B.S. 1935, A.M. 1937, University	
Andrews, H. H. K.	Ohio	of Cincinnati	
A.B. 1935, Miami College		Europe, William Joseph	Va.
Andrews, H. H. K.	Calif.	B.S. 1935, B.A. 1937, University	
A.B. 1935, Florida State College for		Rutland	
Women		Ph.D. 1937, Richmond	Va.
Andrews, H. H. K.	N.Y.	A.B. 1935, Ohio University	
A.B. 1935, New York University		Reynolds, Louis	D.C.
Andrews, H. H. K.	D.C.	B.S. 1935, M.F.A. 1937, The George	
A.B. 1935, The George Wash-		Washington University	Mass.
ington University		Rutland, Mary Ann Thomas	
Andrews, H. H. K.	Wash.	A.B. 1935, A.M. 1937, Ph.D. 1937,	
A.B. 1935, University of Washington		The College, University of America	
Andrews, H. H. K.	Iowa	System, Richmond	
A.B. 1935, State University of Iowa		B.S. 1935, M.F.A. 1937, Carnegie Insti-	
Andrews, H. H. K.	Calif.	tute of Technology	S.D.
A.B. 1935, University of California		Shaw, John M.	
Andrews, H. H. K.	Idaho	A.B. 1935, University of South	
A.B. 1935, University of Utah		Dakota	

Snow, William Boylan, Jr. A.B. 1911, University of North Carolina	N.C.	Van Meter, LaRue A.B. 1922, Illinois Wesleyan University	Ill.
Splawn, John H. B.B.A. 1935, Texas College of Arts and Industries	Tex.	Vaught, John Marshall A.B. 1930, Washington and Lee University	Tenn.
Steinbach, Clarence Paul A.B. 1930, University of Nebraska	S.D.	Walker, Samuel Branch III B.S. in Ch.E. 1935, M.S. 1939, University of Idaho	Idaho
Thompson, Malcolm Hayes B.Ed. 1937, Plymouth Normal School	N.H.	Woodley, Frederick William, Jr. University of Idaho	D.C.
Tiffany, Dewey E. A.B. 1930, University of Minnesota	Ores.	Zitver, Leon B.S. in Eng. 1916, College of the City of New York	N.Y.
Underwood, Harry Kent A.B. 1913, American University	D.C.		

## FEBRUARY 22, 1943

Amos, Edna Johanna B.S. in Ed. 1934, University of Pennsylvania	Pa.	Murphy, Donald Vincent A.B. 1938, University of Iowa	Iowa
Asa, Hilda Aronson (With distinction)	Wash.	Nelson, Victor Pershing Schick, James Peter	Utah N.Y.
A.B. 1940, Radcliffe College		A.B. 1936, Lafayette College	Ill.
Askew, Harry Lee, Jr. A.B. 1938, University of Florida	Fla.	Shan, Kenneth L. Hamilton Ph.B. 1911, University of Chicago	N.Y.
Boock, John Adrian A.B. 1937, University of Minnesota	Minn.	Smith, Marilla Horton A.B. 1930, New York State College for Teachers	Wash.
Davis, Frank Elwood Dennis, Milton L. A.B. 1931, The George Washington University	D.C. Tex.	Thornton, Jack Bernard A.B. 1910, University of Washington	Utah
Gelway, Everett Arthur B.S. 1931, Boston University	Va.	Volker, Henry Wright B.S. 1917, University of Utah	D.C.
Goodson, Vivian Brandshaft A.B. 1934, Smith College	N.Y.	Wechsler, Nathan A.B. 1940, The George Washington University	N.M.
Johnston, Wesley Amos Monk, Carl	N.Y. Okla.	Zinn, Dean Sarguy A.B. 1940, The George Washington University	

## MASTER OF LAWS

## JUNE 3, 1942

Becker, William Bain A.B., LL.B. 1938, Washington University	Mo.	Greene, Lawrence J. A.B. 1911, LL.B. 1939, Columbia University	N.Y. Ill.
Bledsoe, Edwin Page, Jr. B.S. 1930, Washington and Lee University	Va.	Penstone, Giles Henry Ph.B. 1928, J.D. 1930, University of Chicago	Ala.
LL.B. 1930, The George Washington University		Warner, Marvin L. B.S. 1939, LL.B. 1941, University of Alabama	Ind.
Brown, George Robbins A.B. 1938, LL.B. 1940, The George Washington University	Ohio	Wood, James Nathan A.B. 1935, DePauw University	
Callomon, Ernest M. D.L. 1919, University of Breslau	D.C.	LL.B. 1938, Indiana Law School	
LL.B. 1941, The George Washington University			

## FEBRUARY 22, 1943

Hatch, Robert Seymour A.B. 1920, Ohio University	Ohio	Reynolds, Frank Miller, Jr. A.B., LL.B. 1939, University of Oklahoma	Okla.
LL.B. 1931, Ohio State University			

## JURIS DOCTOR

JUNE 3, 1942

Baker, James Campbell B.S. 1912, United States Naval Academy Br. Wa. Alberta	Ohio	Johnson, James LeRoy A.B. 1922, University of South Carolina	S.C.
Baker, B.E. 1911, Baylor University	Tex.	Jones, Frederick Nelson B.S. 1928, Columbia University	Me.
Bullock, James Robert B.S. 1928, Utah State Agricultural College	Utah	Larkin, Tedd Augustus A.B. 1928, The George Washington University	Miss.
Burton, Percy Trenton B.S. 1930, University of Oregon	Oreg.	Martin, Walter David A.B. 1941, University of Michigan	Md.
Creighton, Helen, Everett A.B. 1942, Waverly College	Pa.	Mason, Gerald Maxwell, Jr. A.B. 1928, The George Washington University	Panama
AM 1936, University of Michigan			
Fettis, Theodore Albert B.S. 1929, M.S. 1931, Washington University	Mo.	Meyer, Vincent B.S. 1919, University of California	D.C.
Glaum, Lawrence B.S. 1928, M.S. 1929, Massachusetts Institute of Technology	Mass.	O'Brien, Fred Lee B.S. 1928, University of Wisconsin	Ark.
Goldberg, Joseph A.B. 1934, Brooklyn College	N.Y.	Pizer, Margaret Lorraine A.B. 1934, Georgia State Woman's College	Ga.
Graham, James Deaklin, Jr. A.B. 1939, Cornell College	Mont.	Rand, Lewis Harold B.S. & C.E. 1934, University of Illinois	Ill.
Hays, Jack Newton, Jr. (Washington)	Okla.	Roberts, George Jack B.S. & M.E. 1938, Lewis Institute	Ill.
AM 1938, University of Tulsa		Sessions, Eugene (Washington)	Ala.
Heiser, Edwin B.S. 1918, College of the City of New York	N.Y.	AB 1939, University of Alabama	Utah
Henry, George Robert A.B. 1941, The George Washington University	Ind.	Smith, Robert Lee A.B. 1934, University of Utah	Idaho
Hill, Samuel Billingsley, Jr. A.B. 1937, Williams College	D.C.	Walters, Robert Lee A.B. 1938, College of Idaho	Pa.
Jones, Warren Thomas B.S. in E.E. 1937, University of Southern California	Ca.	Walters, Robert Lee A.B. 1934, University of Pennsylvania	
		AM 1939, The George Washington University	

FEBRUARY 22, 1943

Bernstein, Cyrus B.S. 1931, College of the City of New York	N.Y.	Dowd, Thomas Nathan (Washington)	Iowa
Casper, David Aaron B.S. 1926, Ministry of Education, Romania	D.C.	AB 1939, The George Washington University	
L. Gold, in Drept 1929, University of Carol I, Romania		Jones, Edward Hamilton A.B. 1936, University of Iowa	Iowa
P. St. Dr. 1935, University King Ferdinand I, Romania			



# STUDENTS REGISTERED

1942-43

The names of all students registered in the Law School during the academic year 1942-43 are listed below in alphabetical order.

A		
Abrams, Bernard Bradson	Tex.	Bee, Max Culbertson
B.S. in C.E. 1935. C.E. 1940, The Citadel		A.B. 1931. Park College
Ahlum, Robert Paul	Pa.	Bellin, Charles Newton
B.S. 1942, Temple University		M.E. 1934. Colorado School of Mines
Ainsworth, Charles Donald	Ill.	Belman, Clare Distel
A.B. 1942, University of Illinois		A.B. 1930. Ohio State University
Allen, Merlin Russell	D.C.	Benner, Harry Lohr
Allen, William Gordon	D.C.	A.B. 1923, The George Washington University
B.S. in M.E. 1930. University of Illinois		M.S. 1942. Georgetown University
Ammarell, John Samuel	Pa.	Benner, James Harrison
A.B. 1941, Muhlenberg College		A.B. 1940. University of Maryland
Amos, Edna Johanna	Pa.	Berry, Allan Douglas
B.S. 1934, University of Pennsylvania		A.B. 1934, Henderson State Teachers College
Anderson, Howard Jeremy	Utah	Beveridge, Andrew Bennie
A.B. 1936, University of Utah		B.S. 1936, University of Maryland
LL.B. 1940, The George Washington University		J.D. 1941, The George Washington University
Anderson, Lynne Lois	Nebr.	Bier, William
A.B. 1941, Nebraska Wesleyan University		B.S. 1942, Brocklyn College
Arad, Hilda Aronson	Va.	Boash, Stanley Edward
A.B. 1941, Radcliffe College		B.S. 1929, LL.B. 1936, University of Wisconsin
Atherton, Eva	D.C.	Biron, Naomi Besyre
B.S. 1939, New York State College for Teachers		A.B. 1938, The George Washington University
Atlas, Martin	N.Y.	Blackmon, Joel D.
A.B. 1934, New York University		B.S. 1936, Brown University
A.M. 1935, Columbia University		Block, Robert Cushman
B		B.S. 1942, State Teachers College (Platteville, Wis.)
Babcock, Henry Allen	Ark.	Boatright, Harry Burton
A.B. 1929, Arkansas College		A.B. 1925, Depauw University
A.M. 1932, The George Washington University		Booth, Jean
Barley, William Edward	Ga.	Borgstadt, Richard Donald
Baldwin, George Hull, Jr.	Va.	B.S. in E.E. 1940, University of Iowa
B.E. 1936, Yale University		Boroughs, Lewis Edward
Bange, Agnes Ward	D.C.	Bradlev, John Curtis
Barber, Oren Gilbert	Va.	Brand, Paul Joachim
B.S. 1920, Northwestern University		B.S. 1941, New York University
Barnes, Mildred Emily	N.J.	Breckinridge, John
A.B. 1933, Vassar College		A.B. 1941, The George Washington University
A.M. 1936, University of Chicago		Brinkman, Francis William
B.S. in L.S. 1938, Columbia University		Bristow, Ellen Sawyer
Bartimo, Frank Antonio	Mass.	A.B. 1940, Madison College
A.B. 1941, Clark University		Bronfenbrenner, Morton
Bartimo, Kathryn Derle	Mass.	A.B. 1934, Washington University
B.S. in Ed. 1937, A.M. 1938, State Teachers College (Worcester, Mass.)		Ph.D. 1941, University of Chicago
Ph.D. 1941, Clark University		Brown, Alberta
Barton, Olive Hazel	Mass.	A.B. B.E. 1931, Baylor University
A.B. 1930, Wheaton College (Mass.)		Ph.D. 1942, The George Washington University
Batten, Caleb Livingston	Va.	Brown, Hermione Kopp
A.B. 1942, University of Richmond		A.B. 1944, Wellesley College
Baumgardner, Woodrow Alvin	Tenn.	Brown, Melvin Manuel
A.B. 1934, Lincoln Memorial University		A.B. 1941, University of Missouri
Beckler, David Zander	N.Y.	Brown, William Vincent, Jr.
B.S. 1930, University of Rochester		B.B.A. 1941, University of Texas
		Brown, William Warren
		A.B. 1942, Grinnell College

[illegible]





Holt, Madeline LL.B. 1925, The George Washington University	Fla.	Kelly, Martha Louise Kear, Maxwell M. B.S.S. 1929, College of the City of New York	N.C. N.Y.
Holmes, Ruel A. M. AB. 1921, University of Utah	Utah	Kies, James Lawrence Kings, William Decker, Jr. AB. 1926, Liberty and Henry College	D.C. Va.
Holmes, Sherman Schiller AB. 1921, Western Reserve University	Ohio	Kimpel, Ernest Blake, Jr. AB. 1921, Agricultural and Mechan- ical College of Arkansas	Ark.
Holmes, O. L. BS. 1923, Massachusetts Institute of Technology	Md.	Kluge, Jules Meyer Klohe, Albert Edward, Jr. Klemer, Richard Elias B.M.E. 1922, New York University	Ariz. W.Va. Md.
Holmes, Martin J. BS. 1927, College of the City of New York	N.Y.	Klotz, Maria Maternische Rosen Kline, William Howard John BS. 1918, Pennsylvania State College	Mass. Pa.
Holmes, Dorothy Fletcher AB. 1922, Wellesley College AM. 1923, The George Washington University	D.C.	Krueger, Evan LeRoy AB. 1929, LL.B. 1932, University of Utah	Idaho
Holmes, Robert Wade AB. 1929, University of Tulsa	Okl.	LL.M. 1941, The George Washington University	
Holmes, Frank Rhodes BS. 1922, The George Washington University	Md.		
Holmes, Edgar Cunningham BS. 1921, F.E. 1930, Georgia School of Technology	La.		
I.			
Ibarra, Anna Badony de AB. 1925, The George Washington University	Ill.	Ladner, John LL.B. 1921, University of Chicago	Okl.
Interludat, Paul Frank	D.C.	Lam, Mildred French AB. 1914, University of Arkansas AM. 1916, Cornell University	D.C.
J.			
Jacob, Wilma Jane AB. 1921, Duke University	D.C.	Lane, Earl Frederick AB. 1914, Carleton College	D.C.
Jacob, Francis Eugene BS. 1923, Scripps Hall College	N.J.	Larson, Herbert F. Larzel, Satoru H. LL.B. 1924, University of the Phil- ippines	Okl. D.C.
Jacob, Raymond Walter AB. 1922, The George Washington University	Ala.	LL.M. 1922, Harvard University	
Jacob, William S. LL.B. 1921, University of Kentucky	Ky.	Lawson, Martin R. Laxer, Aaron Alva, Jr. Leach, William O. Jr. Leckwitz, David Irving LL.B. 1927, College of the City of New York	D.C. Tenn. Okl. N.Y.
Jacob, Martin W. BS. 1924, Northwest Missouri State Teachers College	D.C.	Leckwitz, Robert Sterling AB. 1920, The George Washington University	D.C.
Jacob, Robert Monroe AB. 1921, University of North Dakota	N.D.	AM. 1921, Harvard University	
Jacob, Charles Arthur BS. 1925, State University of Iowa	Va.	Letesche, August Alfred LL.D. 1927, University of Lausanne	D.C.
Jacob, Russell AB. 1922, University of Texas	D.C.	Lesson, Carl Otto Lewis, Arthur Norman AB. 1924, Harvard University	N.C. N.Y.
Jacob, M. A. LL.M. 1929, Harvard University		BS. 1922, University of Michigan	
Jacob, William L. LL.M. 1929, The George Washington University		Lewis, Ralph Samuel Lieberman, Simon Morris Lieberman, Herman BS. 1928, M.S. 1929, College of the City of New York	Pa. N.Y. N.Y.
Jacob, William Amos BS. 1921, The George Washington University	N.Y.	Lindel, Russell M. AB. 1925, University of Washington	Wash.
Jacob, John A. AB. 1920, Villanova College AM. 1921, Duke University	D.C.	Linder, James Grant B.E. 1924, Eastern Illinois State Teachers College	D.C.
K.			
Kahn, Frank Foreman AB. 1925, University of Chicago	D.C.	Lingren, Edna M. AB. 1924, AM. 1925, State Uni- versity of Iowa	Iowa
Kahn, John P. B.A. 1923, Harvard University		Livy, Robert Louis Campbell, 1923, University of Cincinnati	D.C.
Kahn, John P. B.A. 1923, College of the City of New York	N.Y.	Lischner, Isaac Benjamin BS. 1921, M.S. 1926, College of the City of New York	N.Y.
Kahn, John Alexander AB. 1921, The George Washington University	D.C.	Livack, Jacob Desiderio AB. 1925, San Francisco State College AM. 1926, University of California	D.C.



Lockwood, Fred Stark	Va.	Morrison, Robert Lillard	Ta.
B.C. 1911, 1917, Syracuse University		B.S. 1938, Stephen F. Austin State Teachers College	Wash.
Lorch, Joseph Paul	N.C.	Mulholland, Eugene John	Mass.
B.S. 1915, M.F. 1918, University of North Carolina		A.B. 1920, University of Washington	
Loney, George M.	N.Y.	Murdock, Frederick Marean	
Lusky, Vincent Joseph	N.J.	A.B. 1930, A.M. 1931, Clark University (Mass.)	
B.S. 1922, Seton Hall College		Murphy, Doris Jean	Ill.
M		A.B. 1918, Ohio State University	
Ma, Jr. Ruth Fales	D.C.	Murphy, Jay Wesley	D.C.
Major, E. Florence	Pa.	A.B. 1911, University of Illinois	
B.S. 1911, Drexel Institute of Technology		Murphy, Joan Catherine	Ill.
Margen, John James	Va.	A.B. 1941, The George Washington University	
LL.B. 1941, Fairham University		Murphy, Julian George	Me.
Martin, David Edmund	N.Y.	A.B. 1942, University of Maryland	
B.S. 1928, Syracuse University		Murphy, Margaret Norris	Me.
McCombes, Harold Glenn	Iowa	A.B. 1937, The George Washington University	
McCon, Theodore S.	Va.	Myers, Robert Holt	
B.S. 1919, University of Virginia		A.B. 1940, Princeton University	
McDonald, Robert Adams	N.Y.	N	
A.B. 1941, Syracuse University		Nance, Henry Hart	Ta.
McGee, Patricia George	Mass.	Narron, Wiley	D.C.
McGuire, Leonard Hunt	Iowa	A.B. 1935, Atlantic Christian College	
McGuire, Robert Vernon	D.C.	Nathan, Sarah Jeannette	Me.
A.B. 1918, The George Washington University		A.B. 1941, University of North Carolina	Univ.
McKenzie, Lawson Morell	Ind.	Nelson, Kenneth Paul	D.C.
B.S. 1914, A.M. 1918, The George Washington University		Nelson, Victor Pershing	
McKey, Richard Kenneth	Univ.	Neubeck, John Henry	Me.
McKinzie, Helen Beatrice	Iowa	LL.B. 1933, Georgetown University	
McKinnon, William Thomas	S.C.	Neumann, Margaret Marie	
A.B. 1928, A.M. 1929, University of South Carolina		A.B. 1928, The George Washington University	Okla.
McLean, Rufus Dinkle	Ky.	Nickels, Harry Jackson, Jr.	Wa.
A.B. 1941, Marshall College		North, Robert H.	N.J.
McMahan, Virginia A.	Conn.	Nylen, Edward Warren	
A.B. 1911, College of New Rochelle		B.S. 1942, University of Maryland	
McNeil, George Henry, Jr.	D.C.	O	
A.B. 1942, The George Washington University		Olesby, Dwayne LaVergne	Kent.
McReynolds, Frances R. P.	Ill.	Olsen, Elwood H.	S.D.
A.B. 1931, Illinois College		A.B. 1938, Morningside College	
Meader, William Allan	Ky.	I.D. 1940, State University of Iowa	D.C.
Mehler, Walter Robert	Va.	Olson, Carlous LeRoy	N.Y.
A.B. 1942, The George Washington University		O'Neill, Thomas Joseph	
Miller, L. Edw. Henry	Idaho	Osann, Edward William, Jr.	
B.S. 1918, University of Idaho		B.M.E. 1930, Russell Institute	Polytechnic
Miller, Robert Bruce	Ind.	P	
A.B. 1928, Fairham College		Packard, Howard Merrill	Conn.
Minter, James Beryl	W. Va.	B.S. 1932, Northwestern University	
Mitchell, Albert	N.M.	Parham, Sarah Alden	Ill.
A.B. 1938, University of New Mexico		A.B. 1942, Smith College	N.Y.
Moyble, James David	Conn.	Patrick, Harry L.	D.C.
Moyall, Lawrence L.	Nebr.	Patterson, Donald MacKely	Va.
A.B. 1911, 1918, Nebraska State Teachers College		B.S. in C.E. 1910, Bucknell University	
Moss, Carl	Okla.	Peasinger, Charles W.	
Moss, Mary, Hazel Garard	Pa.	Pelton, Russell Gilbert	Ariz.
A.B. 1941, Weymouth College		B.S. in I.E. 1945, Syracuse University	
Moore, George Carlton, Jr.	Md.	Pennington, Claude Mitchell	Wash.
A.B. 1941, University of Maryland		Peterson, Anne Louise	
Moore, Henry Morris	Tex.	Peyser, Etienne Allen	Wash.
Moore, Richard Stuart	N.H.	LL.B. 1922, University of Washington	
A.B. 1939, Harvard University		Peyser, Marie D.	
Morris, Dorothy Frances	Calif.	Phelan, Catherine E.	Pa.
A.B. 1911, University of California		A.B. 1916, Clarke College (Iowa)	
Morris, Richard Hughes	Mich.	Phillips, Joseph L.	
A.B. 1941, Miami University		Pincock, Dee Whitford	

John Samuel, Jr.	N.Y.	Russ, William Joseph	N.J.
AB 1941, Henry Duval	Okla	B.S. 1942, Seton-Hall College	
AB 1940, University of Oklahoma		Rutledge, Ivan Gale	Tenn.
Pres. John Country	D.C.	AB 1934, Carver-Newman College	
AB 1936, George Washington	Pa	A.M. 1942, Drake University	
AB 11.B. 1948, The George Wash-		Ryrie, Willie Yeates	Miss
Pres. Central University		B.S. 1939, American University	
AB 1939, Ohio State University	Ohio		
Pres. Palmer		S	
AB 1942, The George Washington	D.C.	Saara, Wilbur W., Jr.	Kan
Pres. William Baker		AB 1934, Murray State Teachers	
AB 1938, Furman University	S.C.	College (Ky.)	
Parrell James Milton	Ohio	Schaefer, Otto-Gerhard Julius	N.Y.
		Schmitt, Barbara Ann	Md.
		AB 1942, The George Washington	
		University	
		Schmidt, Walter Haines	Nebr.
		AB 1942, University of Nebraska	
		Schwartz, Elmer William	D.C.
		B.S. 1941, Kansas State College in	
		Art, Science and Applied Science	
		Schwartz, Elmer	Pa
		AB 1942, Haver College	
		J.D. 1941, The George Washington	
		University	
		Schwartz, Aaron B. Caswell, Jr.	D.C.
		B.S. 1941, Purdue University	
		Smith, Robert Maxwell	D.C.
		AB 1942, University of Tulsa	
		Seaton, John Charles, Jr.	Ill.
		B.S.C. 1941, State University of	
		Iowa	
		Shaw, William Gay	N.J.
		B.S. 1941, Seton-Hall College	
		Shaw, John L.R.	D.C.
		Shaw, John Margaret	D.C.
		AB 1942, American University	
		Shelton, Oliver Charles	Va.
		B.S. in Law, 1947, University of	
		Illinois	
		Shreve, Mary E. Fox	Va.
		AB 1948, College of William and	
		Mary	
		Shur, Louis	N.Y.
		B.S.S. 1940, College of the City of	
		New York	
		Simons, Robert William	Va.
		B.S. 1942, University of Missouri	
		Smith, George Henry	Ill.
		THE 1941, DePaul University	
		Skate, Edgar	Kans.
		B.S. 1941, Kansas State Teachers	
		College (Topeka, Kans.)	
		Smith, Thomas Lewis	D.C.
		AB 1948, University of Idaho	
		Smith, Lewis Stratford	Utah
		Smith, David Frederick, Jr.	Ala.
		AB 1942, University of Alabama	
		Smith, George Eugene	Kans.
		AB 1942, The George Washington	
		University	
		Smith, J. Russell	Utah
		Smith, James Arthur	Mass.
		B.S. 1942, Massachusetts Institute	
		of Technology	
		Smith, Mary M. Lore	Va.
		Smith, Milton Albert	D.C.
		11.B. 1944, Washington College of	
		Law	
		Soutar, Douglas Herbert	Wis.
		B.B. 1944, University of Wisconsin	
		Sparks, Joseph Roy, Jr.	Tex.
		B.S. in M.E. 1942, Rice Institute	





# SUMMARIES OF REGISTRATION

1942-43

## NUMBER OF REGISTRATIONS

Candidates for the degrees of Bachelor of Laws and Juris Doctor			
	Fall Term	Winter Term	Total
First Year .....	190	152	230
Second Year .....	71	50	77
Third Year .....	54	43	59
Total .....	315	245	372
Candidates for the degree of Master of Laws .....	14	17	21
Candidates for the degree of Doctor of Juridical Science .....	3	4	5
Total candidates for degrees .....	341	272	398
Unaffiliated student .....	23	10	29
"University students" .....	5	2	5
Total .....	369	284	432

## GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Alabama .....	6	New Jersey .....	12
Arizona .....	3	New Mexico .....	3
Arkansas .....	8	New York .....	33
California .....	6	North Carolina .....	8
Colorado .....	1	North Dakota .....	1
Connecticut .....	7	Ohio .....	9
Delaware .....	81	Oklahoma .....	13
District of Columbia .....	4	Pennsylvania .....	18
Florida .....	1	South Carolina .....	3
Georgia .....	4	South Dakota .....	2
Idaho .....	15	Tennessee .....	8
Illinois .....	8	Texas .....	20
Indiana .....	12	Utah .....	9
Iowa .....	3	Virginia .....	37
Kansas .....	5	Washington .....	6
Louisiana .....	1	West Virginia .....	6
Maine .....	1	Wisconsin .....	6
Massachusetts .....	23	Wyoming .....	1
Michigan .....	13	Alaska .....	1
Minnesota .....	5	Brazil .....	1
Mississippi .....	2	Cuba .....	1
Missouri .....	5	Federated Islands .....	1
Montana .....	4	Puerto Rico .....	2
Nebraska .....	2		
Nevada .....	10		
New Hampshire .....	1	Total .....	432



## GRADUATES OF COLLEGES REGISTERED IN THE LAW SCHOOL

Agricultural and Mechanical College of Arkansas .....	2	Iowa State College of Agriculture and Mechanic Arts .....	1
Alabama Polytechnic Institute .....	1	Johns Hopkins University .....	1
American University .....	2	Kalamazoo College .....	1
Arkansas College .....	1	Kansas State College .....	1
Atlantic Christian College .....	1	Kent State University .....	1
Baylor University .....	2	Lafayette Memorial University .....	1
Boston University .....	1	Marion College .....	1
Brooklyn College .....	3	Marshall College .....	1
Brown University .....	1	Marquette College of the Sacred Heart .....	1
Bucknell University .....	1	Massachusetts State Teachers College .....	1
California Institute of Technology .....	1	Massachusetts Institute of Technology .....	1
Case Western Reserve University .....	1	Maynooth University .....	1
Catholic University of America .....	1	Mississippi State College .....	1
Clark University .....	3	Mississippi State College for Women .....	1
Clarke University .....	1	Monmouth College .....	1
Colby College .....	1	Muhlenberg College .....	1
College of the City of New York .....	11	Murray State Teachers College .....	1
College of the Holy Cross .....	2	National University .....	1
College of New Rochelle .....	2	Nebraska State Teachers College .....	1
College of William and Mary .....	1	Nebraska Wesleyan University .....	1
Columbia School of Mines .....	1	New Jersey State Teachers College .....	1
Columbia University .....	6	New York State Teachers College .....	1
Concordia College .....	1	New York University .....	1
Cornell University .....	4	Northwest Missouri State Teachers College .....	1
Crofton University .....	1	North Texas State Teachers College .....	1
Cumberland University .....	1	Northwestern University .....	1
Dartmouth College .....	1	Ohio College .....	1
D'Pauw University .....	2	Ohio State University .....	1
Dickinson College .....	1	Ohio University .....	1
Drexel Institute of Technology .....	1	Oklahoma Agricultural and Mechanical College .....	1
Duke University .....	3	Oklahoma City University .....	1
Earham College .....	1	Park College .....	1
Eastern Illinois State Teachers College .....	1	Pennsylvania State College .....	1
Emory and Henry College .....	2	Pomona College .....	1
Fenn College .....	1	Princeton University .....	1
Fradham University .....	1	Purdue University .....	52
Farman University .....	1	Radcliffe College .....	2
George Peabody School for Teachers .....	1	Rensselaer Polytechnic Institute .....	1
Georgetown University .....	5	Rice Institute .....	1
George Washington University. The .....	1	San Francisco State College .....	1
Georgia School of Technology .....	52	Seton Hall College .....	1
Grimm College .....	2	The Citadel .....	4
Harvard University .....	13	Simpson College .....	1
Henderson State Teachers College .....	1	Smith College .....	1
Hope College .....	1	Sorbonne University .....	2
Hunter College .....	4		
Illinois College .....	1		
Illinois Institute of Technology .....	1		
Indiana University .....	2		



## INDEX

- Academic status of the University, 5-6
- Administration, officers of, 4
- Admission, 16-18
- Advanced standing, 17-18
- Attendance, 21
  
- Bachelor of Laws, degree of, 17, 24-25
  
- Calendar of the School, 1943-44, vi
- Classification of students, 22
- Course numbers, explanation of, 27
- Courses of instruction, 27-32
  
- Dean's Council, 13
- Degrees, 24-26
  - Conferred 1942-43, 33-35
  - In the graduate course, 26
  - In the professional course, 24-25
- Doctor of Juridical Science, degree of, 17-18, 26
  
- Emeritus professors, 9-10
- Employment, student, 23
- Examinations, 21
- Exclusion and probation for poor scholarship, 22
  
- Faculty, 9-13
- Fees and financial regulations, 18-20
  
- Geographical distribution of students, 52
- Grades, 21
- Graduates of colleges registered in the School, 44-45
- Graduation requirements, 24-27
  
- Health Administration, 18, 23-24
- History:
  - Of the School, 13
  - Of the University, 5
- Honors, 25
- Hours of Instruction, 21
  
- Juris Doctor, degree of, 17, 25
  
- Juridical Science, degree of Doctor of, 17-18, 26
  
- Law Review*, 14
- Library, 14
- Living accommodations, 23
- Loan funds, 22
  
- Master of Laws, degree of, 17, 26
  
- Order of the Coif, 16
  
- Placement Office, 23
- Prizes, 20-21
  
- Refund of tuition, 19-20
- Registration, 18
- Registrations in the School, number 43
- Regulations, 21-23
- Residence, 22, 25, 26
- Right to drop students, 22-23
  
- Scholarship, 16, 17, 22, 24-25
- Scholarships, 20
- Student:
  - Bar Association, 15-16:
    - Fee, 18, 19-20
    - Employment, 23
    - Life, 23-24
- Students registered, 1942-43, 36-42
- Summaries of registration, 1942-43, 43-45
  
- Trustees, Board of, 3
  
- Unclassified students, 18
- University:
  - Academic status, 5-6
  - Colleges, Schools, and Divisions
  - Fee, 18
  - History, 5
  - Location, 6
  
- Wartime program, 13-14
- Withdrawals and refunds, 19-20

THE GEORGE WASHINGTON UNIVERSITY  
WASHINGTON, D. C.

Report of the Comptroller

FOR THE YEAR ENDED

AUGUST 31, 1943





# EXHIBITS AND SCHEDULES

## EXHIBIT

A	Balance Sheet	Summary Form	PAGE
A	Balance Sheet	Summary Form	12
B	Summary of Current Operating Income and Expense		14
B	Summary of Current Funds—Unrestricted Surplus		16
C	Summary of Current Funds Restricted—Unexpended		17
D	Summary of Loan Funds Principal		18
E	Summary of Endowment Funds Principal		19
F	Summary of Plant Funds—Unexpended		20
G	Summary of Net Investment in Plant		21
			22

## SCHEDULE

1	Current Operating Income	1
2	Current Operating Expense	3
3	Miscellaneous Assets and Liabilities	1
4	Assets of Endowment Funds—Controlled by the University	24
5	Assets of Endowment Funds—Controlled by Other Trustees	29
6	Assets of Plant Funds—Unexpended	36
7	Land and Buildings—Invested in Plant	37
8	Equipment—Invested in Plant	46
9	Current Funds Restricted—Unexpended	50
10	Changes in Principal of Loan Funds	52
11	Changes in Principal of Endowment Funds	56
12	Changes in Principal of Plant Funds—Unexpended	58
		65
		66
		68

## APPENDIX

### Gifts

### Description of Trust Funds

70
72

# INDEX

Accounts Receivable.....	36	Land.....	52
Administration and General Expense.....	29	Libraries.....	33-56
Agency Funds.....	59	Loan Funds.....	12
Books, Library.....	56	Assets.....	65
Buildings.....	52	Changes in Principal.....	72
Current Funds Restricted—Unexpended.....	58	Description.....	33
Deferred Income—Unrestricted.....	36	Maintenance and Operation of Plant.....	55
Duplicating Bureau.....	28-35	Notes Payable—Trust.....	12
Endowment Funds.....		Notes Payable—Unsecured.....	36
Changes in Principal.....	66	Notes Receivable—Trust.....	27-34
Description.....	72	Ophthalmology—Post Graduate Course.....	68
Income.....	60	Plant Funds—Unexpended.....	80
Investments.....	46	Changes in Principal.....	63
Trustee Controlled.....	37	Description.....	50
University Controlled.....	56	Income.....	36
Equipment.....	70	Investments.....	28-35-71
Gifts.....	27-34	Prepaid Expense.....	58
Hospital.....	30	Prizes.....	28-35
Instruction.....	12	Research—Organized.....	28-35
Inventory—Student Club.....		Residence Halls.....	28-35
Investments.....		Sorority Halls.....	28-35
Endowment Funds.....		Student Club.....	28-35
Trustee Controlled.....		Student Fees.....	24
University Controlled.....		Surplus.....	17
Plant Funds.....		Current Funds—Unrestricted.....	22
		Net Investment in Plant.....	24
		Tuition and Other Fees.....	

# INDEX OF LOAN, ENDOWMENT, AND PLANT FUNDS

Acker	73	Gardner	75	Reserve for Reduction of Note Payable of Current and Plant Funds to	80
Alumni Endowment	73	General Building	80	Endowment Funds	77
Alumni Professorship	74	General Hospital	76	Ruggles	77
Andrews	78	George Washington Law Association	72	Sanders	78
Art and Archeology	74	Loan	72	School of Medicine	75
Borden	75	George Washington Memorial	75	Scottish Rite	75
Brown	78	Gibbs	77	Schwab	80
Burns	76	Graduate	74	Sharpe	75
Campaign, 1923-24	73	Haggett	73	Spencer	79
Carr	78	Harvey	79	Stachiton Ilton	77
Carroll	74	Herron	72	Sterrett	77
Carter, H. H.	78	Home Economics Loan	76	Stone	79
Carter, M. M.	78	Hubbard	72	Student Loan—University	72
Chapman	78	Kellogg Loan	72	Student Union, Furnishings	80
Class of 1929 Women's Unit No. 3	76	Kellogg Medical Technology Loan	72	Subscription Gifts, 1848-51	73
College Women's	80	Kendall	78	Sutherland	72
Congressional	79	King, Isabella O.	78	Swisher Above Book	74
Cooper	74	King, W. B.	73	Swisher Prize	77
Corcoran	75	Kaapp	78	Swisher Scholarship	79
Cowles	73	Kuhlbank	76	Syns	73
Cressant	76	Larner	76	Tree	76
Cutter	77	Lewis	75	Trustees	73
D. A. R. Endowment	74	Morehouse	78	Walker	79
D. A. R. Loan	72	National Park Seminary	76	Walsh	77
Davis Prize	77	Ohio Section of the G. W. Memorial	80	War Loan	72
Davis Scholarship	79	Association	76	Weddell	77
Depea	74	Ordronaux	76	Whelan	79
Duplicating Bureau Equipment	80	Pairo	80	Withers	73
Elton	74	Powell	78	Withington	79
Evans	77	Reinhardt	76	Women's Activities Building	80
Farnham	79	Reserves for Protection of Investments	72	Women's Board Hospital	76
Fitch	77	Consolidated Endowment	80	Woodbury	79
Founders of Columbian Women	79	Consolidated Plant	72	Woodhull	79
		Scottish Rite	72	Yulee	74



## LETTER OF TRANSMITTAL

December 31, 1943

TO THE PRESIDENT AND THE BOARD OF TRUSTEES  
THE GEORGE WASHINGTON UNIVERSITY  
WASHINGTON, D. C.

GENTLEMEN:

I am submitting herewith the Report of the Comptroller of The George Washington University for the fiscal year ended August 31, 1943. This report is a review of the budget operations for the year and is based on the budget approved by the Board of Trustees of the University.

The accounts of the University are kept and its financial reports set up as far as practicable in conformance with the recommendations of the National Committee on Standard Reports for Institutions of Higher Education. Under that plan the funds of the University are classified in various fund groups, and the accounts and financial statements are set up to segregate clearly the assets and liabilities of each of these groups as indicated in the balance sheet, Exhibit A.

R. G. Rankin & Co., certified public accountants, have examined the accounts of the University for the past year, and their report is appended herewith.

A condensed summary of the principal facts in the report is presented below and on succeeding pages, followed by detailed Exhibits and Schedules.

Respectfully submitted,  
HENRY W. HERZOG  
Comptroller

## CONDENSED SUMMARY

### CURRENT FUNDS—UNRESTRICTED

*These funds represent unrestricted assets which are available for immediate use in the current operation of the University.*

**OPERATING INCOME**

Operating income for the year was \$1,940,874.99 (Schedule 1).  
Scholarships were awarded to students from the following sources: current funds unrestricted (Schedule 2 Page 4), \$12,661.34;

endowment income (Schedule 9—Page 3), \$3,739.34.  
The University continued the accelerated program inaugurated last year to satisfy immediate war needs and the needs of the post-war future. This program provided year-round instruction on a three term basis.

In the interest of the war effort, the University conducted 104 short engineering courses of college grade under Public Law 647, 77th Congress, 2nd Session, Title II, subheading "Education and Training, Defense Workers (National Defense)" to provide training for properly qualified trainees. The United States Government appropriated \$29,401.00 for these courses of which \$87,458.33 was expended in the 1942-43 year (Schedules 1 and 2). The balance of \$8,042.67 was deferred to the 1943-44 year and of this amount \$1,558.97 was expended, the balance of \$7,883.70 being refunded to the Government.

### OPERATING EXPENSE

Operating expense for the year was \$1,848,595.09 (Schedule 2).

### SURPLUS

The operating net income for the year was \$92,279.90. At the end of the fiscal year 1942-43, the Current Funds Unrestricted Surplus amounted to \$29,193.90. A summary of changes affecting Surplus appears on Exhibit B.

### CURRENT FUNDS—RESTRICTED

Gifts, grants, and income from endowments comprise these funds which consist of currently expendable assets, limited as to disposition.

During the year restricted gifts for immediate use amounted to \$3,086.02 (Page 70); other restricted gifts for use as needed or specified amounted to \$271,149.89 (Page 70); restricted endowments earned \$71,945.73.  
A summary of changes affecting these funds appears on Exhibit C.

## LOAN FUNDS

For the assistance of students seeking financial aid, loan funds have been established by the University and by other organizations (Schedule 10). Loans are made at a low rate of interest and when repaid the interest is added to the principal.

During the year, loans were made to 245 students. Gifts of \$7,943.00 were made to the Loan Funds (Schedule 10).

A summary of changes affecting these funds appears on Exhibit D.

## ENDOWMENT FUNDS

The principal of all endowment funds amounts to \$2,519,486.58, including Reserves for Protection of Investments of the Consolidated Endowment Funds and the Scottish Rite Endowment Fund which have a credit balance of \$82,797.96. These funds are represented by assets which, under the terms of wills, deeds of gift, or under the by-laws of the University, must be held in perpetual trust for income-producing purposes. The principal amount and purpose of every endowment fund of the University are recorded on Schedule 11. A description of the funds begins on page 72.

"Consolidated Endowment Funds" consist of sixty-nine endowments with a total value of \$921,520.07 (Schedule 4—Page 2). The assets of these funds are combined to eliminate the possibility of partial or total loss of any fund through the failure of a specific investment, and to avoid temporary suspension of income; it also prevents carrying uninvested small cash balances in amounts not adapted to investment, and gives all funds equality of treatment. Unless otherwise restricted by the donors, the assets of all new endowments are added to the assets of the Consolidated Endowment Funds. Their earnings are recorded in one income account and distributed at the end of the year to the participating funds in the proportion each fund bears to the total of the entire group. This income, after deductions for amortization of premiums on investments and 10% of the balance as a reserve against losses (Schedule 11), was distributed to the participating funds at the end of the past year at the rate of \$7.67% (Schedule 9).

The Scottish Rite Fund earned \$64,950.74 net income on its investments during the year just ended.

Pluses to the School of Medicine Endowment Fund on August 31, 1943, totaled \$64,380.

Net income of endowment funds for the year was \$89,773.88 (Schedule 9—Page 3).

A summary of changes affecting these funds appears on Exhibit E.

#### PLANT FUNDS—UNEXPENDED

Cash and other assets not yet expended for development of the physical plant comprise this type of fund (Schedule 6). There was expended from these funds during the past year \$102,024.17 for land, buildings, and equipment (Schedule 12). Unexpended Plant Funds, including \$2,973.34 Reserve for Protection of Investments, total \$309,802.33 (Exhibit F), the investments of which are shown on Schedule 6.

A summary of changes affecting these funds appears on Exhibit F.

#### PLANT FUNDS—INVESTED IN PLANT

The investment in the physical plant of the University includes land, buildings, and equipment; their total value August 31, 1943, was \$5,248,407.64 (Exhibit A).

Additions to land and buildings during the year totaled \$87,885.62 (Schedule 7). Equipment was increased by \$49,829.08 (Schedule 8). Total notes payable were reduced by \$38,500.00 (Exhibit G). Additional expenditures on the Plant Auditors amounted to \$88,379.62 (Schedule 7 Page 1) increasing the valuation to \$775,207.57.

A summary of changes affecting these funds appears on Exhibit G.





## AUDIT CERTIFICATE

TO THE PRESIDENT AND THE BOARD OF TRUSTEES  
THE GEORGE WASHINGTON UNIVERSITY  
WASHINGTON, D. C.

December 31, 1943

GENTLEMEN:

We have examined the balance sheet of THE GEORGE WASHINGTON UNIVERSITY as at August 31, 1943, and the statements of current operating income and expense, current funds surplus, and other fund transactions for the fiscal year then ended, have reviewed the system of internal control and the accounting records of the University, and, without making a detailed audit to the extent we deemed appropriate.

In our opinion, the balance sheet and related statements of current operating income and expense, current funds surplus, and other fund transactions recorded in the accompanying Report of the Comptroller of the University present fairly the financial position of The George Washington University as at August 31, 1943, and the results of operations for the fiscal year then ended, in conformity with accepted principles of university and college accounting applied on a basis consistent with that of the preceding year.

Respectfully submitted,

R. G. RASKIN & Co.  
Certified Public Accountants

## THE GEORGE WASHINGTON UNIVERSITY

## BALANCE SHEET

August 31, 1943

ASSETS		LIABILITIES	
CURRENT FUNDS			
UNRESTRICTED			
CASH.....	16,492.85	NOTES PAYABLE—Riggs National Bank. Due on or before 10-25-43. Interest 3%.....	75,000.00
ACCOUNTS RECEIVABLE (Schedule 3).....	68,230.36		
Texas Nomin Receipts and (Schedule 3).....	38,000.00	DEFERRED INCOME AND DEPOSITS (Schedule 3).....	64,418.04
INVENTORY.....	4,005.00		
University Student Club.....	41,883.73	SURPLUS (Exhibit B)	20,173.90
PREPAID EXPENSE (Schedule 3).....			108,611.94
RESTRICTED			
CASH.....	36,071.45	UNEXPENDED FUNDS (Exhibit C)	80,071.45
INVESTMENT \$50,000 par value U.S.A. Savings Bonds, Series G, dated Jan. 11, 1934.....	50,000.00		
LOAN FUNDS			
CASH.....	21,593.92	PAYMENTS ON LOANS (Exhibit D)	46,140.98
LOANS RECEIVABLE.....	7,337.09		

# ENDOWMENT FUNDS

Cash (Schedule 4)..... 43,340.45  
 INVESTMENTS\* (Schedule 4) 2,283,749.16  
2,327,089.61

CONTROLLED BY OTHER TRUSTEES  
 (Schedule 5)

231,596.97

2,558,686.58

2,558,686.58

TRUST NOTE PAYABLE  
 Lewis Fund  
 (Schedule 4—Page 3)..... 39,000.00

PRINCIPAL OF FUNDS (Exhibit E) 2,519,686.58

2,558,686.58

## PLANT FUNDS

### UNEXPENDED

Cash (Schedule 6) — 86,191.00

INVESTMENTS  
 (Schedule 6)

223,611.33

309,802.33

PRINCIPAL OF FUNDS (Exhibit F)

309,802.33

### INVESTED IN PLANT

LAND AND BUILDINGS (Schedule 7) 4,701,488.12

EQUIPMENT (Schedule 8)

546,919.52

5,248,407.64

8,417,720.92

TRUST NOTE PAYABLE  
 (Schedule 7)

768,680.23

NET INVESTMENT (Exhibit G) 4,152,727.41

5,248,407.64

8,417,720.92

ELIMINATION OF INTERFUND ACCOUNT  
 \* (Schedule 4—Page 2)

TOTAL

323,430.23

8,094,290.69

ELIMINATION OF INTERFUND ACCOUNT  
 (Schedule 7—Page 2)

323,430.23

8,094,290.69





Liabilities	Total	Current Funds		Isan Funds	Endowment Funds	Plant Funds	
		Unrestricted	Restricted			Unexpended	Invested In Plant
Notes Payable	75,000 00	75,000 00					
Deferred Income and Deposits	64,418 04	64,418 04					
Unexpended Funds	86,071 45		86,071 45				
Principal of Funds	2,875,629 89			46,140 98	2,519,686 58	309,802 33	
Trust Notes Payable†	834,680 23				39,000 00		795,680 23†
Surplus—Current Funds	29,193 90	29,193 90					
Net Investment In Plant	4,452,727 41						4,452,727 41
	8,417,720 92	168,611 94	86,071 45	46,140 98	2,558,686 58	309,802 33	5,248,407 64
†Less Inter-Fund Account...	323,430 23						
	8,094,290 69						

SUMMARY FORM—EXHIBIT A

# SUMMARY OF CURRENT OPERATING INCOME AND EXPENSE

For the Year Ended August 31, 1943

INCOME (Schedule 1)		
Educational and General		
Student Fees.....	1,194,679.45	
Endowment Investments Income.....	83,882.58	
Gifts.....	267,775.69	
Other Sources.....	21,953.06	
	<u>1,568,290.78</u>	
Activities Relating to Instruction.....	1,822,941.37	
Non-Educational.....	117,047.42	
	<u>886.20</u>	
		<u>1,940,874.99</u>
EXPENSE (Schedule 2)		
Educational and General		
Administration and General.....	193,112.61	
Instruction.....	782,480.65	
Organized Research.....	251,623.15	
Libraries.....	33,424.40	
Maintenance and Operation of Plant.....	151,204.82	
Other Expense.....	78,203.03	
Activities Relating to Instruction.....	<u>1,490,048.66</u>	
	247,449.39	1,737,498.05
Auxiliary Enterprises.....	108,185.11	
Non-Educational.....	<u>50,240.14</u>	
		<u>1,895,923.30</u>
Less general overhead expense re-apportioned (Page 35)		<u>47,528.21</u>
		<u>1,848,395.09</u>

EXCESS OF CURRENT OPERATING INCOME OVER CURRENT OPERATING EXPENSE (see below)

92,279.90

# SUMMARY OF CURRENT FUNDS- UNRESTRICTED SURPLUS For the Year Ended August 31, 1943

BALANCE AUGUST 31, 1942.....				49,535.77
<b>ADDITIONS</b>				
Excess of Current Operating Income over Current Operating Expense (see above)				
Pat. Fund - To increase Current Funds Unrestricted for Land and Buildings acquired prior to September 1, 1942, previously transferred to Plant Funds Invested (Schedule 12)	92,279.00			
	<u>4,500.00</u>			
			96,779.00	
			<u>146,315.67</u>	
<b>DEDUCTIONS</b>				
Unaudited portion of Annuity Club gift to the University Hospital in 1940-41 closed				
Gift Surplus in 1940-41 (see for Schedule 9)		58.77		
Reduction in Plant and Survey Fund of amount expended in 1939-40 for land for Auditorium		<u>65,307.00</u>		
After decreased and to be reported (Schedule 12)				
Transferred to Non Investment in Plant - Exhibit G				
Land and Buildings				
Reduction in Total Notes Payable - Exhibit G				
Trust Notes Payable August 31, 1942				
Trust Notes Payable August 31, 1943 (Schedule 7)				
			834,180.23	
			<u>795,680.23</u>	
			38,500.00	
			<u>117,121.77</u>	
BALANCE AUGUST 31, 1943 - EXHIBIT A.....				29,193.90

EXHIBIT B



# SUMMARY OF CURRENT FUNDS RESTRICTED--UNEXPENDED

For the Year Ended August 31, 1943

	TOTAL	ORGANIZED RESEARCH	MISCEL- LANEOUS	AGENCY	ENDOWMENT INCOME
BALANCE AUGUST 31, 1942.....	73,259.73	2,764.13	15,894.30	241.58	54,359.72
ADDITIONS (Schedule 9)					
Gifts.....	272,458.41	268,658.91	3,799.50		
Miscellaneous Receipts.....	1,551.81		185.27	1,366.54	95,655.00
Investment income.....	95,655.00			1,608.12	150,014.72
	<u>442,924.95</u>	<u>271,423.04</u>	<u>19,879.07</u>		
DEDUCTIONS (Schedule 9)					
Salaries.....	132,657.72	132,657.72			
Expenses.....	119,965.36	118,965.43	999.93		
Refunds.....	183.50		133.50		
Transferred to Schedule 1.....	10,551.37		10,551.37		
Scholarships, fellowships.....	1,009.30		1,009.30		
Pharmacy books.....	29.05		29.05		
Withdrawals.....	1,046.88			1,046.88	
Transferred to Current Funds Unrestricted.....	83,882.58				83,882.58
Transferred to the University Hospital.....	846.96				846.96
Transferred to Funds Principal.....	2,312.30				2,312.30
Other transfers.....	37.94				37.94
Prizes awarded.....	641.20				641.20
Scholarships awarded.....	3,739.34				3,739.34
	<u>356,853.50</u>	<u>251,623.15</u>	<u>12,723.15</u>	<u>1,046.88</u>	<u>91,460.32</u>
BALANCE AUGUST 31, 1943--EXHIBIT A.....	86,071.45	19,799.89	7,155.92	561.24	58,554.40

SUMMARY OF LOAN FUNDS PRINCIPAL  
For the Year Ended August 31, 1943

BALANCE AUGUST 31, 1942.....			20,880.76
ADDITIONS (Schedule 10)			
Income from endowment.....			
Gifts.....	189.68		
Interest on loans.....	7,943.00		
Received from the United States Government.....	21.57		
	<u>17,782.66</u>	25,936.91	
DEDUCTIONS (Schedule 10)			
Transferred to Current Funds Unrestricted.....	155.69		25,781.22
BALANCE AUGUST 31, 1943—EXHIBIT A.....			<u>46,140.98</u>

EXHIBIT D

# SUMMARY OF ENDOWMENT FUNDS PRINCIPAL

For the Year Ended August 31, 1943

	TOTAL	ENDOWMENT FUNDS	RESERVES FOR PROTECTION OF INVESTMENTS
BALANCE AUGUST 31, 1942.....	2,498,317.47	2,426,730.64	71,586.83
ADDITIONS (Schedule 11)			
Gifts.....	7,196.89	7,196.89	
Investment income.....	1,693.57	1,693.57	
Gain on sale of investments.....	8,767.45	1,267.52	7,499.93
10% of Consolidated Endowment Funds net income.....	3,711.20	.....	3,711.20
BALANCE AUGUST 31, 1943—EXHIBIT A.....	2,519,686.58	2,436,988.62	82,797.96

# SUMMARY OF PLANT FUNDS—UNEXPENDED

For the Year Ended August 31, 1943

	TOTAL	PLANT ADDITIONS	RETIREMENT OF DEBT	RESERVE FOR PROTECTION OF INVESTMENTS
BALANCE AUGUST 31, 1942.....	349,733 28	329,882 60	16,909 90	1,970 78
ADDITIONS (Schedule 12)				
Investment income				
Gifts	650 88	273 42		
Inter-fund transfer	10,709 89	10,709 89	377 46	
Refund (Exhibit B)	65,307 00	65,307 00		
Gain on sale of investments	65,307 00	65,307 00		
	2 56			
	141,977 33	141,597 31	377 46	2 56
DEDUCTIONS (Schedule 12)				
Transferred to Schedule 1				
Furnishings purchased	6,121 10	6,121 10		
Transferred to Schedule 9	200 00	200 00		
Land and Buildings—Invested in Plant—Exhibit G	244 93	244 93		
Equipment—Invested in Plant—Exhibit G	74,629 62	74,629 62		
Inter-fund transfer	27,306 55	27,306 55		
Transferred to Exhibit B	65,307 00	65,307 00		
Loss on sale of investments	4,500 00	4,500 00		
	3,509 08	3,509 08		
	181,908 28	181,908 28		
BALANCE AUGUST 31, 1943—EXHIBIT A.....	309,802 33	289,541 63	17,287 36	2,973 84



# SUMMARY OF NET INVESTMENT IN PLANT

For the Year Ended August 31, 1943

BALANCE AUGUST 31, 1942..... 4,276,512.71

## ADDITIONS

Reduction in Trust Notes Payable (Exhibit B)..... 38,500.00

LAND AND BUILDINGS SCHEDULE 7	EQUIPMENT SCHEDULE 8
-------------------------------------	-------------------------

Current Funds Unrestricted (Exhibit B).....	13,256.00
Plant Funds Unexpended (Exhibit F).....	74,629.62
Departments (Schedule 2).....	22,432.53

137,714.70 176,214.70

BALANCE AUGUST 31, 1943—EXHIBIT A (Refer to footnote on Schedule 8)..... 4,432,727.41

## SCHEDULES

EXHIBIT B

CURRENT OPERATING INCOME  
For the Year Ended August 31, 1943

EDUCATIONAL AND GENERAL		
STUDENT FEES		
Tuition and Laboratory		251,408.79
Junior College		69,189.45
Caribbean College		3,217.34
Graduate Council		19,766.37
School of Government		145,238.94
Division of University Students		488,820.89
Division of Extension Students		6,174.70
School of		
Education		
Engineering		24,273.58
University Courses		43,106.83
War Training Courses		
1941-42 Series	15,349.71	
Refunded to U. S. Government	13,433.31	1,916.40
1942-43 Series	96,401.00	
Deferred to 1943-44	8,942.67	87,458.33
Law		132,481.56
Medicine		38,698.96
Pharmacy		154,621.25
		4,078.84

Summer Sessions

Regular Term

College

Junior

Columbian

Division of

Extension Students

University Students

Graduate Council

School of

Education

Government

Law

Pharmacy

Special Terms

Engineering

Medicine

Unallocated (Fees Old)

Miscellaneous Fees

Art Validation

Binding Theses

Breakage

Graduation

Junior Certificates

Medical School Credits

Student Bar Association

University Fees

Investment Income (Schedule 9)

Endowment Funds

Unrestricted

Restricted

Plant Funds

Restricted

43,151 39

15,691 94

2,365 00

33,852 36

36 00

6,902 25

4,303 50

8,519 50

98 00

114,919 94

9,438 28

80,857 10

90,295 38

205,215 32

9,759 59

1,064,124 69

62 50

168 00

3,578 26

10,530 00

2,340 00

4,884 50

1,682 50

107,519 00

130,554 76

1,194,679 45

17,778 04

60,104 54

77,882 58

6,000 00

83,882 58



# CURRENT OPERATING INCOME (Continued)

For the Year Ended August 31, 1943

## EDUCATIONAL AND GENERAL (Continued)

EXHIBIT B

### GIFTS

#### Unrestricted

Wilmer Worth Fund (Schedule 9) 6,044.40  
 Susan Whitney Dimock Fund (Schedule 12) 6,121.10  
 Charles W. Gerstenberg 100.00

12,265.50

#### Restricted

Organized Research (portion used—Schedule 9) 251,623.15  
 Drs. Freeman and Watts  
 Deferred from 1941-42 (Schedule 9) 595.33  
 Received in 1942-43 (portion used—page 70) 301.97  
 W. O. N. A. R. D. Fund (Schedule 9) 897.30  
 Pharmacy Loan Fund (Schedule 10) 50.00  
 Other (Page 70) 155.69  
 2,784.05

255,510.19

267,775.69

### OTHER SOURCES

Commission for Collection of Doctors' Fees—Hospital 1,571.10  
 Discounts Earned 1,090.56  
 Interest Earned 1,900.55  
 Library Fines 346.95  
 Miscellaneous Income (including \$50 from Schedule 9) 426.87  
 Photostats, Transcripts 561.52  
 Reading Clinic Fees 93.00  
 Rent on University Property—Net 6,233.34  
 Speech Clinic 66.00  
 Varsity House Rent 492.00  
 Student Activities  
 Cherry Tree 1,530.57  
 Hatchet 3,271.82  
 Law Review 1,891.66  
 University Press 52.80  
 Student Council 2,424.62

9,171.47

21,953.84

ACTIVITIES RELATING TO INSTRUCTIONAL DEPARTMENTS  
The George Washington University Hospital

Hospital Patients			
Private Rooms.....	82,167.30		
Semi-Private Rooms.....	19,771.75		
Open Wards.....	43,965.70		
Operating Rooms.....	10,661.85		
Delivery Rooms.....	5,658.00		
X-Ray Department.....	13,954.65		
Laboratories.....	9,657.79		
Pathological Examinations.....	225.00		
Frozen Sections.....	1,964.10		
Tissues.....	9,701.48		
Pharmacy.....	110.00		
Special Nursing Care.....	3,380.75		
Board of Special Nurses.....	393.42		
Telephone.....	1,261.13		
Sale of Supplies.....	21.93		
Sale of Plasma.....	1,004.95		
Other Hospital Service.....	1,553.14		
Out Patient Department.....		205,452.94	
Other Sources.....			
Community Chest.....	15,011.30		
Health Security Administration.....	2,613.57		
Gifts (portion used—page 70).....	1,576.50		
" Amity Relief Club (Schedule 9).....	56.67		
" Mrs. Hattie M. Strong (Schedule 9).....	4,350.30		
Subsistence of Staff.....	5,983.47		
Endowment Income (Schedule 9—Page 2).....	21,000.00		
Miscellaneous Income.....	846.96		
Post Graduate Course in Ophthalmology.....	38.71		
Deferred from 1941-42.....		45,494.01	250,946.95
Receipts 1942-43.....		6,054.76	
Deferred to 1943-44.....		2,351.12	3,703.64
			254,650.59

# CURRENT OPERATING INCOME (Continued)

For the Year Ended August 31, 1943

## AUXILIARY ENTERPRISES

Exhibit B

### RESIDENCE HALLS

Strong Hall..... 24,121.31  
Men's Dormitory—717 22nd Street NW..... 1,345.98  
Miscellaneous Income..... 65.04

25,532.33

### DINING HALL

43,958.24

### SORORITY HALLS

2129 G Street NW..... 4,345.00  
802 21st Street NW..... 1,450.00

5,795.00

### DUPLICATING BUREAU

1,438.23

### STUDENT CLUB—UNIVERSITY

40,323.62 117,047.42

## NON EDUCATIONAL

### PRIZES

Endowment Income (portion used—Schedule 9).....  
Gifts (page 71).....

641.20  
245.00

886.20

## TOTAL—EXHIBIT B

1,940,874.99

# CURRENT OPERATING EXPENSE

For the Year Ended August 31, 1943

## EDUCATIONAL AND GENERAL

### ADMINISTRATION AND GENERAL

	TOTAL	SALARIES	Other Expense	FOOTPRINT EXHIBIT C
President's Office	42,275 82	32,185 25	10,090 57	
Comptroller's Office	34,731 67	26,143 78	8,587 89	
Business Manager's Office	47,540 96	17,375 32	31,165 28	1,002 36
Admissions Office	13,926 83	12,375 80	1,551 03	
Registrar's Office	15,431 96	12,913 08	2,518 89	323 99
Adviser to Students from Foreign Countries	467 96	342 96	125 00	
Admission Office	8,691 08	6,149 07	2,542 01	
Inter American Center	2,672 47	2,400 00	272 47	
Personnel Department	3,708 04	3,541 66	166 38	
Public Relations	8,686 43	2,105 83	6,580 60	
Retirements	12,600 00	12,600 00		
University Chapels	379 39	270 00	109 39	
TOTAL ADMINISTRATIVE AND GENERAL - EXHIBIT B	193,112 61	128,402 75	63,383 51	1,326 35



# CURRENT OPERATING EXPENSE (Continued)

For the Year Ended August 31, 1943

## EDUCATIONAL AND GENERAL (Continued)

### INSTRUCTION

Junior and Columbian Colleges  
Divisions of Journalism and University Students  
Graduate Council and School of Government  
Administrative Expense

	TOTAL	SALARIES	OTHER EXPENSE	EQUIPMENT EXPENSE
Art	14,054.71	13,113.50	941.21	
Biology	6,156.77	4,900.00	1,256.77	
Botany	3,688.75	3,585.00	146.75	7.00
Business Administration	9,582.78	9,425.00	157.78	
Chemistry	14,425.00	14,400.00	25.00	
Ecology	29,185.89	23,310.66	5,599.01	
English	17,925.00	17,875.00	50.00	
French	34,229.14	34,140.00	89.14	
Geology	1,549.00	1,500.00	49.00	
Germanic Languages	9,310.39	9,300.00	10.39	
Graduate Council	70.90	70.00	90	
History	15,511.57	15,442.66	68.91	
Journalism	4,516.91	4,214.00	302.91	
Mathematics	14,519.12	14,500.00	19.12	
Philosophy	3,002.50	3,000.00	2.50	
Physics	19,098.29	18,675.00	349.18	74.11
Political Science	14,425.80	14,401.00	24.80	
Psychology	12,255.07	10,910.00	1,231.46	113.61
Public Speaking	10,207.70	8,745.00	249.97	1,162.73
Romance Languages	21,238.40	21,201.65	36.75	
Secretarial Studies	5,133.38	4,915.00	218.88	
Sociology	4,113.02	4,100.00	13.02	
Statistics	6,911.99	6,900.00	11.99	
Zoology	12,604.42	11,125.00	1,278.92	200.50
	283,716.50	269,698.47	12,183.86	1,834.17

*Division of Extension Students*

*Administrative Expense.*

Instruction .....	2,719 61	2,200 00	519 61
	7,124 84	6,733 78	390 76
	<u>9,844 15</u>	<u>8,933 78</u>	<u>910 37</u>

*School of Education*

*Administrative Expense.*

Education .....	2,284 13	2,220 00	64 13
Home Economics .....	18,384 63	18,075 00	309 63
	10,507 67	8,555 00	1,890 39
	<u>31,176 43</u>	<u>28,850 00</u>	<u>2,264 15</u>

62.28  
—  
62.28

*School of Engineering*

*University Courses*

*Administrative Expense.*

Civil .....	3,198 12	3,040 00	158 12
Electrical .....	16,184 25	15,176 50	184 40
Management .....	8,801 51	8,575 00	122 99
Mechanical .....	6,000 00	6,000 00	
	18,361 64	18,217 00	126 66
	<u>47,545 52</u>	<u>46,008 50</u>	<u>592 26</u>

*War Training Courses*

*1941-42 Series*

*Administrative Expense*

*Instruction*

	2,798 83	2,177 50	625 96
	(-882 43)	464 00	(-1,239 70)
	<u>1,916 40</u>	<u>2,641 50</u>	<u>(-613 74)</u>

(-4 63)  
(-109 73)  
(-111 36)

*1942-43 Series*

*Administrative Expense*

Including \$7,408 apportioned from general overhead expense (Page 35)\*

*Instruction*

*Maintenance (Apportioned from*

*University Maintenance† Page 33)*

	22,887 89	15,013 93*	7,858 46
	56,578 44	52,530 26	2,753 59
	<u>7,992 00</u>	<u>67,544 19</u>	<u>7,992 00†</u>
	<u>87,458 33</u>		<u>18,584 05</u>

15 50  
1,314 59

1,330 09

*Total Engineering.*

	136,920 25	116,194 19	18,562 57
			<u>2,163 49</u>

# CURRENT OPERATING EXPENSE (Continued)

For the Year Ended August 31, 1943

EQUIPMENT  
EXHIBIT G

OTHER  
EXPENSE

SALARIES

TOTAL

## EDUCATIONAL AND GENERAL (Continued)

### INSTRUCTION (Continued)

Law School

Administrative Expense

Instruction

### School of Medicine

Anatomy

Bacteriology, Hygiene, and Preventive Medicine

Biochemistry

Dermatology

Medicine

Neurology

Obstetrics and Gynecology

Ophthalmology

Otolaryngology

Pathology

Podiatry

Pharmacology

Physiology

Psychiatry

Surgery

University

General Research

### School of Pharmacy

Administrative Expense

Instruction

4,039.66

45,150.00

49,189.66

21,149.79

16,740.24

20,206.58

19,440.45

1,125.00

20,937.80

3,580.82

6,947.37

1,220.77

1,900.00

26,029.52

2,503.71

14,082.57

20,338.16

1,850.00

6,550.00

1,166.00

5,598.81

191,865.59

48.70

5,115.00

5,163.70

3,629.00

44,850.00

48,479.00

18,778.00

13,820.00

18,874.33

17,770.00

1,125.00

20,711.60

3,400.63

6,800.00

1,350.00

1,900.00

24,754.98

2,516.66

18,035.00

18,634.98

1,850.00

6,550.00

1,100.00

110.00

173,281.18

25.00

5,115.00

5,140.00

410.66

300.00

710.66

2,371.79

1,407.45

988.49

1,633.99

226.20

186.19

147.37

76.77

816.90

47.05

672.84

1,207.72

66.00

5,488.81

15,337.57

23.70

470.53

494.23

1,518.79

343.76

36.46

457.64

374.73

515.46

3,246.84

323.86

323.86

Summer Sessions  
 Administrative Expense..... 79.81  
 Instruction..... 52,552.30  
51,494.00  
51,494.00

Physical Education  
 Men..... 2,387.10  
 Women..... 1,315.78  
3,702.88  
 Total Instruction—Exhibit B..... 99.91  
7,730.55

# ORGANIZED RESEARCH (SCHEDULE 9—PAGE 1)

Including \$24,735.21 appropriated from general overhead  
 expense (Page 55)—Exhibit B

LIBRARIES  
 Books..... 7,515.45  
 Other Expense..... 25,908.95  
33,424.40  
 Total Libraries—Exhibit B..... 118,965.43  
132,657.72\*

# MAINTENANCE AND OPERATION OF PLANT (From Maintenance, continued to 1942-43 War Training Center) (Page 55)

Other Expense..... 159,196.82  
 Total Maintenance—Exhibit B..... 7,992.00  
151,204.82  
 OTHER EXPENSE  
 Student Activities..... 9,495.53  
 Health Administration..... 3,416.26  
 Janitor..... 48,004.59  
 Men's Activities..... 12,956.04  
 Student Council Accounts..... 4,130.61  
 University Account..... 78,203.03  
23,783.04  
 Total Other Expense—Exhibit B..... 54,419.92



# **CURRENT OPERATING EXPENSE (Continued)** For the Year Ended August 31, 1943

**OTHER  
EXPENSE**

**EQUIPMENT  
EXPENSE**

**TOTAL**

**SALARIES**

## **EDUCATIONAL AND GENERAL (Continued)**

### **ACTIVITIES RELATING TO INSTRUCTION**

The George Washington University Hospital

Administration

Included \$15,000 apportioned from general overhead expense (Page 35)\*

Medical and Surgical Care	27,446.36	23,930.23*	3,516.13
Nursing Care	16,061.57	3,185.75	12,875.82
Laboratories	59,303.90	59,303.90	
Pharmacy	6,613.36	5,968.69	644.67
N. Ray	12,072.30	1,590.00	10,482.30
Dietary	18,142.78	10,294.61	7,848.17
Out Patient Department	42,795.88	10,885.79	31,910.09
Laundry	6,281.34	6,007.55	273.79
Medical Records and Library	11,714.96		11,714.96
Housekeeping	1,672.10	1,620.00	52.10
Heat, Light, Power	10,649.88	6,890.95	3,758.93
Maintenance of Building	4,552.29		4,552.29
Yard Service	4,505.73	2,493.69	2,012.04
Substance	933.80	933.80	
	21,000.00	21,000.00	
	243,745.75	154,104.46	89,641.29
Post Graduate Course in Ophthalmology	3,703.64	2,350.00	1,353.64
<b>TOTAL ACTIVITIES RELATING TO INSTRUCTION</b>	<b>247,449.39</b>	<b>156,454.46</b>	<b>90,994.93</b>

## **AUXILIARY ENTERPRISES**

Residence Halls

Strong Hall	14,548.76	7,773.59	6,775.17
Men's Dormitory—717 22nd Street NW	1,360.82	650.00	710.82
Staughton Hall	5,230.16		5,230.16
	21,139.74	8,423.59	7,485.99
	41,887.21	17,014.24	24,872.97

Dining Hall

**SORORITY HALLS**

2129 G Street NW.  
802 21st Street NW.....

987.13  
2,074.05  
3,061.18

200.00  
200.00  
400.00

787.13  
1,874.05  
2,661.18

**DUPLICATING BUREAU.....**

1,825.89

1,320.00

505.89

**STUDENT CLUB—UNIVERSITY.....**

33,939.08

8,211.48

25,194.35

**AUDITORIUM.....**

6,332.01

3,232.11

3,099.90

**TOTAL AUXILIARY ENTERPRISES—EXHIBIT B**

108,185.11

38,601.42

538.25

**NON EDUCATIONAL.**

**PRIZES**

Awarded from Endowment Income (Schedule 9)

Awarded from Gifts Received (Page 71)

641.20

248.00

886.20

**SCHOLARSHIPS—Awarded from Current Funds Unrestricted**

12,661.34

36,692.60

50,240.14

**TOTAL NON EDUCATIONAL—EXHIBIT B**

50,240.14

**TOTAL EXPENSE—EXHIBIT B**

1,895,923.30

1,280,124.24

27,432.53

\*Less general overhead expenses appropriated to the  
for the year ending at the close of the year.

Organized Receipts—Page 33

Bureau of Naval Ordnance

Office of Scientific Research and Development

1,784.65

22,940.56

24,725.21

7,608.00

15,000.00

War Training Center—Page 11

University Hospital—Page 34

47,328.21

**TOTAL EXPENSE, ADJUSTED—EXHIBIT B**

1,848,595.09

# MISCELLANEOUS ASSETS AND LIABILITIES

August 31, 1943

EXHIBIT A

## ACCOUNTS RECEIVABLE

Tuition Fees—School of Medicine	65,643.75
United States Government	
Navy Department—Bureau of Ordnance	1,275.21
Office for Emergency Management—Office of Scientific Research and Development	311.40
	<u>68,230.36</u>

## TRUST NOTES RECEIVABLE

GARFIELD MEMORIAL HOSPITAL	
Due \$1,000 each May 11 and November 11 until paid in full. Interest 4%.	Secured by lots 800—
801—806, square 2864	8,000.00
HARRY AND Co.	
Due July 9, 1945. Interest 5%.	Secured by lots 53-54, square 248.
	<u>30,000.00</u>
	<u>38,000.00</u>

## PREPAID EXPENSE

Microscopes	7,559.65
University Stockroom Supplies	33,890.00
Other	434.08
	<u>41,883.73</u>

## DEFERRED INCOME AND DEPOSITS

Student Fees	61,575.67
Library Deposits	45.00
Homecoming Celebration	144.82
Cherry Tree	301.45
Post-Graduate Course in Ophthalmology	2,351.12
	<u>64,418.04</u>

# ASSETS OF ENDOWMENT FUNDS CONTROLLED BY THE UNIVERSITY

August 31, 1943

## CARR SCHOLARSHIP FUND

					VALUE	
BONDS	DESCRIPTION	C%	DUE	PAR	MARKET	
					BOOK	
American Tobacco Co.	Debenture	3	1962	1,000	1,040.00	1,000.00
Atchafalpa Twp. Ry. Co.	General Mortgage	4	1995	2,000	2,380.00	1,970.00
Pennsylvania Railroad Co.	Consolidated Mortgage	4 1/2	1960	1,000	1,220.00	1,034.00
Southern Pacific Railroad Co.	First Refunding Mortgage	4	1955	2,000	1,720.00	1,750.00
United States of America	Savings Bonds, Series G	2 1/2	10-1-54	15,000	14,820.00	15,000.00
United States of America	"	2 1/2	4-1-55	2,000	1,976.00	2,000.00
					23,156.00	22,754.00
STOCKS—PREFERRED					SHARES	
American Cyanamid Co.	Cumulative	5	.....	200	2,400.00	2,385.00
STOCKS—COMMON						
Chrysler Corporation				100	7,800.00	11,500.25
Continental Illinois National Bank and Trust Co.				25	2,400.00	1,882.81
Continental Oil Co. of Delaware				60	2,040.00	2,871.55
General Motors Corporation				100	5,200.00	4,904.50
Socony-Vacuum Oil Co.				200	2,600.00	3,875.00
					20,040.00	25,034.11
CASH					97.50	97.50
TOTALS					45,693.50	50,260.61





Philip Morris & Co., Ltd., Inc.  
 Potomac Electric Power Co.  
 United Gas Corporation

41 1/2  
 6

50 5,550.00 5,000.00  
 2 234.00 314.25  
 50 6,000.00 5,780.12  
 137,154.00 135,207.82

**\$7 Cumulative First.**

**STOCKS—COMMON**

Capital Transit Co.  
 Chicago, Rock Island and Pacific Railway Co.  
 Commonwealth Edison Co.  
 Continental Illinois National Bank and Trust Co.  
 Continental Oil Co. of Delaware  
 General Electric Co.  
 General Motors Corporation  
 International Harvester Co.  
 International Nickel Co. of Canada, Ltd.  
 Keweenaw Copper Corporation  
 Marquette Iron Works Co.  
 National City Bank of New York  
 Phelps Dodge Corporation  
 Standard Oil Co. of California

27 810.00 2,835.00  
 100 0 8,094.72  
 200 5,200.00 6,140.00  
 100 9,600.00 7,531.25  
 150 5,100.00 6,893.40  
 100 3,700.00 5,405.00  
 400 20,800.00 21,619.25  
 200 13,600.00 17,181.75  
 200 6,000.00 12,035.25  
 300 9,300.00 18,227.50  
 6 288.00 588.00  
 39 1,287.00 3,517.04  
 200 4,700.00 7,857.25  
 200 7,400.00 8,429.35  
 87,085.00 126,094.76

**TRUST NOTES RECEIVABLE**

Armstrong, Frank—Secured by lot 14, square 1868.  
 Due \$52.25 or more per month including interest.  
 George Washington University Plant Funds (Schedule 7).  
 Secured by lot 43, square 230  
 Snow, Chester A.—Secured by lot 77, square 162  
 Wollberg, Ben.—Secured by lot 800, square 126.  
 \$1,000 or more due semi-annually  
 Wollberg, Ben.—Secured by lot 9, square 16.

4 1/2 Monthly 519.79 519.79  
 0 12-1-20 323,430.23 323,430.23  
 4 1/2 10-31-43 8,000.00 8,000.00  
 4 11-10-46 29,000.00 29,000.00  
 4 12-4-46 3,500.00 3,500.00  
 394,430.02 394,430.02  
 2,857.14 2,857.14

**REAL ESTATE**

728 17th Street NW., lot 19, square 166—1/14 undivided interest  
 CASH 150.00  
 Special deposit 8,887.93  
 Other  
**TOTALS**

9,037.93 9,037.93  
 881,582.09 921,520.07

## ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY (Continued)

August 31, 1943

## DEPEW PROFESSORSHIP FUND

BONDS	DESCRIPTION	%	DUE	PAR	VALUE	
					MARKET	BOOK
American Telephone and Telegraph Co.	Convertible Debenture	3	1956	10,000	11,500.00	10,915.00
Atchafson, Topeka and Santa Fe Ry. Co.	Convertible	4	1955	3,000	3,330.00	3,139.00
N. Y. Central & Hudson River R. R. Co.	Refunding and Improvement A	4½	2013	30,000	16,200.00	24,750.00
United States of America	Savings Bonds, Series G	2½	10-1-54	8,000	7,904.00	8,000.00
West Shore Railroad Co.	Guaranteed First Mortgage	4	2361	25,000	12,750.00	21,781.25
					51,684.00	68,585.25
STOCKS—PREFERRED						
				SHARES		
American Viscose Corporation	Cumulative	5		50	6,000.00	5,375.00
Atchafson, Topeka and Santa Fe Ry. Co.	Non Cumulative	5		50	4,350.00	5,037.50
Cleveland and Pittsburgh R. R. Co.	Guaranteed	7		100	9,200.00	8,500.00
Detroit, Hillsdale and S. W. R. R. Co.	"	4		163	7,335.00	10,432.00
Gold and Stock Telegraph Co.	"	6		100	9,500.00	11,700.00
N. Y. Lackawanna & Western Ry. Co.	"	5		100	4,400.00	9,800.00
					40,785.00	50,844.50
STOCKS—COMMON						
Commonwealth Edison Co.				440	11,440.00	12,050.00
Continental Car Co.				31	1,023.00	2,375.38
Continental Illinois National Bank and Trust Co.				100	9,600.00	7,531.25
R. J. Reynolds Tobacco Co.	Non Voting B			100	3,000.00	5,112.50
Southern Pacific Co.				50	1,300.00	1,525.00
Standard Oil Co. of California				100	3,700.00	3,327.50
					30,063.00	31,921.63
CASH					13,783.85	13,783.85
TOTAL					136,315.85	165,135.23

# EVANS MEMORIAL AWARD FUND

BONDS	Description	Series A	Due	Par	Value	
					Market	Book
Home Owners Loan Corporation	Treasury Bond	3	1944-52	1,000	1,020 00	1,000 00
United States of America		2½	1949-53	100	106 00	100 00
TOTALS					1,126 00	1,100 00

# LEWIS MEDICAL SCHOOL FUND

REAL ESTATE	Assessed Value
1406, Os. 10 P Street NW, lots 819-820, square 210; 1416-18 14th Street NW, lots 823-822, square 210; 1501 14th Street NW, lot 801, square 209. Property in square 210 subject to Trust Note Payable of \$39,000 (Exhibit A). Interest 4%. Due \$1,000, 10-30-43, \$1,000, 10-30-44, balance 10-30-45.	87,724 00
	145,000 00



# ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY (Continued)

August 31, 1943

## SCOTTISH RITE FUND

BONDS	Description	Ct	Dec	Value	
				PAR	MARKET
American Gas and Electric Co.	Sinking Fund Debenture	3½	1960	8,000	8,640.00
American Tobacco Co.	Debenture	3	1962	1,000	1,000.00
Atlantic Refining Co.	"	3	1953	15,000	15,900.00
Bell Co. General Electric Co.	General and Refunding B.	4½	1981	10,000	11,100.00
Central Electric Light Co.	First and Consolidated Mortgage	3½	1966	25,000	27,750.00
Central Pacific Railway Co.	Third Short Line First Mortgage	4	1954	13,000	12,220.00
Cities Service Co.	Debenture	5	1950	25,000	24,000.00
Cleveland Union Terminal Co.	First Mortgage Sinking Fund C	4½	1977	25,000	18,000.00
Columbia Gas and Electric Corporation	Debenture	5	1961	10,000	10,300.00
Consumers Power Co.	"	3½	1965	20,000	21,800.00
Houston Lighting and Power Co.	First Mortgage	3½	1966	10,000	11,000.00
Lexington and Eastern Railway Co.	"	5	1965	12,000	14,400.00
Liggett and Myers Tobacco Co.	Debenture	5	1951	3,000	3,660.00
Mississippi River Power Co.	First Mortgage Sinking Fund	5	1951	10,000	11,000.00
Nebraska Power Co.	First Mortgage	4½	1981	12,000	12,960.00
New England Telephone & Telegraph Co.	First Mortgage A.	5	1952	15,000	17,550.00
Northern Pacific Railway	Prior Lien Railway and Land Grant	4	1997	25,000	22,500.00
Oregon-Washington R. R. and Nav. Co.	First and Refunding Mortgage A.	4	1961	8,000	8,720.00
Panhandle Eastern Pipe Line Co.	First Mortgage and First Lien B.	3	1960	20,000	20,800.00
					8,516.00
					1,000.00
					14,850.00
					10,448.00
					26,077.50
					12,457.50
					22,705.95
					24,437.50
					10,000.00
					19,978.10
					10,442.00
					13,264.00
					3,248.00
					10,315.00
					13,028.00
					15,728.00
					27,148.00
					7,944.40
					20,337.00

Pennsylvania Power and Light Co. .... First Mortgage	31 1/2	1949	15,000	16,350.00	15,713.00
Pennsylvania Railroad Co. .... Convertible Debenture	31 1/2	1952	20,000	19,600.00	20,892.00
Portland General Electric Co. .... First and Refunding Mortgage	41 1/2	1940	10,000	10,000.00	9,050.00
Protestant Episcopal Cathedral Foundation of D. C. ....	31 1/2	1951	10,000	10,000.00	10,051.00
Shawinigan Water and Power Co. .... First Mortgage A	41 1/2	1947	5,000	5,200.00	5,562.50
Shawinigan Water and Power Co. .... First Mortgage D	41 1/2	1970	5,000	5,250.00	5,562.50
Union Pacific Railroad Co. .... First Mortgage R, R. & Land Grant	4	1947	5,000	5,450.00	5,046.00
United States of America. .... Treasury Bonds	2	1950 52	105,000	105,000.00	105,000.00
United States of America. .... Savings Bonds, Series G	21 1/2	10-1 53	50,000	48,450.00	50,000.00
United States of America. .... "	21 1/2	10-1 54	100,000	98,800.00	100,000.00
United States of America. .... "	21 1/2	1 1 55	100,000	98,800.00	100,000.00
Virginia Electric and Power Co. .... First and Refunding Mortgage B	31 1/2	1948	8,000	8,880.00	8,230.00
Virginia Railway Co. .... First and Refunding Mortgage A	33 1/4	1946	25,000	27,500.00	25,618.00
Washington Gas Light Co. .... General Mortgage	5	1940	4,000	5,160.00	4,800.00
Washington Railway and Electric Co. .... Guaranteed Mortgage	4	1951	10,000	10,800.00	10,532.00
West Shore Railroad Co. .... Guaranteed First Mortgage	4	2 3/4	14,000	7,140.00	12,335.00
				753,720.00	753,787.45

STOCKS - PREFERRED	1	4	1
American Viscose Corporation	5		16,125.00
Polyglut Depotment Stores, Inc.	41 1/4		9,800.00
North American Co.	53 1/4		9,800.00
Philip Morris & Co., Inc., Inc.	41 1/4		8,767.20
Tide Water Associated Oil Co.			15,000.00
United Gas Corporation			20,000.00
			19,450.00
			16,580.13
			85,817.33

# ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY (Continued)

August 31, 1943

## SCOTTISH RITE FUND (Continued)

STOCKS—COMMON	VALUE	
	MARKET	BOOK
Commonwealth Edison Co.	20,800 00	21,995 00
Continental Oil Co. of Delaware	17,000 00	15,725 25
General Electric Co.	14,800 00	17,210 00
International Nickel Co. of Canada, Ltd.	9,000 00	13,032 50
Montgomery Ward and Co.	28,800 00	25,077 25
Owens Illinois Glass Co.	11,400 00	13,285 25
Standard Oil Co. of California	3,700 00	2,400 00
Union Carbide and Carbon Corporation	24,300 00	25,122 50
	129,800 00	134,017 75
TRUST NOTE RECEIVABLE		
District Automotive Supply Co.—Secured by lots 800-801-840, square 75, at 2100 Pennsylvania Avenue NW. Interest $4\frac{1}{2}\%$ . Due \$750 11-30-44, \$750 5-30-44, \$750 11-30-44, \$750 5-30-45, \$47,000 11-30-45.	50,000 00	50,000 00
CASH	20,421 17	20,421 17
	1,045,451 17	
Total Scottish Rite Fund Assets		1,000,000 00
Total Assets of Reserve for Protection of Scottish Rite Fund Investments		44,073 70
		1,044,073 70

# SUMMARY OF ASSETS OF ENDOWMENT FUNDS CONTROLLED BY THE UNIVERSITY

Funds	Total Assets	Cash	Total	Bonds	Stocks		Trust Notes	Real Estate
					Preferred	Common		
Carr	50,240 41	97 50	50,143 11	22,754 00	2,385 00	25,021 11		
Consolidated	921,520 07	9,037 93	912,482 14	283,872 40	135,207 82	126,094 76		
Deplew	165,135 23	13,783 85	151,351 38	68,585 25	50,844 50	31,921 63	364,450 02	2,857 14
Evans	1,100 00		1,100 00	1,100 00				
Lewis	145,000 00		145,000 00					
Scottish Rite	1,044,073 70	20,421 17	1,023,652 53	753,787 45	85,817 33	134,047 75	50,000 00	145,000 00
Total Exhibit A	2,327,089 61	43,340 45	2,283,749 16	1,130,099 10	274,254 65	317,088 25	414,450 02	147,857 14

1 45 1



ASSETS OF ENDOWMENT FUNDS- CONTROLLED BY OTHER TRUSTEES

August 31, 1943

ANDREWS SCHOLARSHIP FUND

	DESCRIPTION	%	DUE	VALUE	
				PAR	BOOK
BOND					
New York Edison Co.	First and Refunding Mortgage E..	3¼	1966	2,000	1,985.00
TRUST NOTE RECEIVABLE					
Brandes, Elmer W.	Secured by lot 25, square 1938....	4½	7-16-44	.....	3,000.00
CASH				15.00	15.00
TOTALS (American Security and Trust Co., Trustee)				5,215.00	5,000.00

HARVEY SCHOLARSHIP FUND

BONDS					
Federal Farm Mortgage Corporation.....	3	1944-49	2,400	2,439.75	2,421.00
Home Owners Loan Corporation..... Series A.....	3	1944-52	2,500	2,539.06	2,518.75
				4,978.81	4,939.75
CASH.....				60.25	60.25

# SHARPE MEDICAL SCHOOL FUND

<b>Bonds</b>			
Federal Land Banks.....	31 1/4	1945-55	3,000
United States of America.....	2 7/8	1955-60	4,800
Consolidated Farm Loan			3,127.50
Treasury Bonds.....			5,382.00
			<u>8,509.50</u>
Cash.....			89.91
			<u>89.91</u>
<b>Totals (National Savings and Trust Co., Trustee)</b>			
			8,599.41
			<u>8,000.01</u>

# SPENCER SCHOLARSHIP FUND

<b>Bonds</b>			
United States of America.....	21 1/4	1952-55	2,400
United States of America.....	2 1/2	5 1-54	5,000
Treasury Bonds.....			2,446.50
Savings Bond, Series G.....			4,800.00
			<u>7,386.50</u>
Cash.....			10.95
			<u>10.95</u>
<b>Totals (The Northern Trust Co., Chicago, Trustee)</b>			
			7,347.45
			<u>7,434.20</u>

ASSETS OF ENDOWMENT FUNDS CONTROLLED BY OTHER TRUSTEES (Continued)  
August 31, 1943

SANDERS FELLOWSHIP FUND

BONDS	DESCRIPTION	%	DUE	VALUE		
				PAR	MARKET	BOOK
Baltimore and Ohio Railroad Co.	First Mortgage	4	1948	10,000	7,350 00	9,587 50
Cons. Gas Elec. Light & Power Co. of Balto.	First Refunding Q	2 3/4	1976	1,000	1,042 50	1,032 72
Federal Land Banks	Consolidated Farm Loan	3	1946-56	4,000	4,225 00	4,028 75
Federal Land Banks	"	3	1945-55	5,000	5,212 50	5,192 50
Federal Land Banks	"	3 1/4	1945-55	5,000	5,212 50	5,141 25
La Salle Apartment, Inc.	Debenture (and 300 sh. Com. Stock)	6	1960	5,000	3,400 00	5,000 00
Potomac Electric Power Co.	First Mortgage	3 1/4	1946	3,000	3,270 00	3,112 50
United States of America	Savings Bonds, Series G	2 1/2	5-1-53	15,000	14,430 00	15,000 00
United States of America	Treasury Bonds	2 1/2	1956-58	100	104 06	105 56
					<u>44,246 56</u>	<u>48,200 78</u>
<b>STOCKS—PREFERRED</b>						
United States Steel Corporation—Cumulative		7		100	11,975 00	14,537 50
Washington Railway and Electric Co.		5		100	11,500 00	10,212 50
					<u>23,475 00</u>	<u>24,750 00</u>
<b>STOCK—COMMON</b>						
United States Steel Corporation				280	14,665 00	42,595 00
<b>TRUST NOTES RECEIVABLE</b>						
Allensworth, Robb F.	Secured by lot 168, square 628	6	11-22-43		7,500 00	7,500 00
Browley Trust	Secured by lots 28, 821, square 254	3 1/2	5-16-45		25,000 00	25,000 00
District National Securities Corporation	Secured by lot 128, square 177.					
	Due \$1,500, or more quarterly beginning 10-7-43	4	1-7-46		15,000 00	15,000 00
Martha Lee Hotel Co.	Secured by lot 175, square 70.	5	10-2-44		10,000 00	10,000 00
McNire, John A. and Elsie W.	Secured by lot 12, block 17, section 1, Montgomery County, Md.		Monthly		7,794 27	7,794 27
Richard, Stoughton, J. and Edith I.	Secured by lot 1, block 3, section 1, Montgomery County, Md.	4 1/2				
Woods, J. H. and W. H. Co.	Due \$53, or more per month including interest	4	8-18-57		7,979 66	7,979 66
Woods, J. H. and W. H. Co.	Secured by lot 808, square 2043. Due \$250 quarterly.	4 1/2	2-12-45		5,500 00	5,500 00
					<u>78,775 93</u>	<u>78,775 93</u>

REAL ESTATE

Washington, D.C.—1741 11th Street NW, lot 808, square 335  
 " 2144 P Street NW, lot 813, square 68

ASSESSED  
 VALUE

2,450 00 2,450 00 2,450 00  
 7,902 00 7,902 00 7,902 00

CASH 10,352 00 10,352 00 10,352 00

1,491 05 1,491 05 1,491 05

TOTALS (National Savings and Trust Co., Trustee)

173,003 54 206,162 76

SUMMARY OF ASSETS OF ENDOWMENT FUNDS CONTROLLED BY OTHER TRUSTEES

Funds	Total Assets	Cash	Investments					
			Total	Bonds	Stocks		Trust Notes	Real Estate
					Preferred	Common		
Andrews	5,000 00	15 00	4,985 00	1,985 00			3,000 00	
Harvey	5,000 00	60 25	4,939 75	4,939 75				
Sanders	206,162 76	1,491 05	204,671 71	48,200 78	24,750 00	42,505 00	78,773 93	10,352 00
Sharpe	8,000 01	89 91	7,910 10	7,910 10				
Spencer	7,434 20	10 95	7,423 25	7,423 25				
TOTAL	231,596 97	1,667 16	229,929 81	50,458 88	24,750 00	42,505 00	81,773 93	10,352 00



# ASSETS OF PLANT FUNDS—UNEXPENDED

August 31, 1943

## PAIRO FUND

BOND	DESCRIPTION	%	DUE	VALUE		
				PAR	MARKET	BOOK
	Chicago, Milwaukee, St. Paul and Pacific R. R. Co. Mortgage A.....	5	1975	2,500	925.00	2,400.00
STOCKS—PREFERRED						
	Kansas City Power and Light Co.....\$6.00 B.....			50	6,200.00	3,120.00
	Merchants Transfer and Storage Co.....A.....	7		100	5,000.00	10,000.00
					11,200.00	13,120.00
STOCKS—COMMON						
	American Security and Trust Co.			20	4,040.00	8,220.00
	Capital Transit Co.			200	6,000.00	14,400.00
	Chicago, Milwaukee, St. Paul and Pacific R. R. Co.....			100		2,100.00
	Merenthaler Linotype Co.			150	7,200.00	15,800.25
	National Bank of Washington			100	10,000.00	25,500.00
	National City Bank of New York			61	2,013.00	2,928.00
	Pennroad Corporation			100	500.00	1,500.00
	Riggs National Bank			114	34,080.00	60,420.00
	Texas Gulf Sulphur Co.			100	8,700.00	5,912.50
	Union Trust Co. of D. C.			100	7,900.00	31,100.00
					75,439.00	167,680.75

## TRUST NOTES RECEIVABLE

Hungerford, Wm. C., and Lillian E.—Secured by tract in Germantown, Md.					900.00	900.00
Due \$20 per month including interest.....	6	Monthly			299.46	299.46
Strothers, Patsy—Secured by lot 89, square 96.....	6	7-26-37			1,536.99	1,536.99
Woodson, H. D.—Secured by lot 150, square 1026	6½	10 7 37			2,736.45	2,736.45
CASH					1,686.82	1,686.82
					91,987.27	187,630.02

# CONSOLIDATED PLANT FUNDS

	C%	D/F	DESCRIPTION		PAR	VALUE	
			Convertible	Debtenture		MARKET	BOOK
BONDS							
American Telephone and Telegraph Co.	3	1956	Debtenture		7,000	8,050.00	7,640.00
American Tobacco Co.	3	1962	Debtenture		12,000	12,480.00	12,000.00
United States of America	24 1/2	11-1-54	Savings Bond, Series G		3,000	2,964.00	3,000.00
United States of America	2 9	1-1-50	" " " D		10,000	7,500.00	7,500.00
STOCKS—COMMON						30,994.00	30,140.00
Commonwealth and Southern Corporation					SHARES		
CASH					25	25.00	28.13
TOTALS						882.06	882.06
						31,001.06	31,050.79

## GEORGE WASHINGTON MEMORIAL FUND

BOND					PAR		
United States of America					10,000		
CASH						7,500.00	7,500.00
TOTALS						83,621.52	83,621.52
						91,121.52	91,121.52

## SUMMARY OF ASSETS OF PLANT FUNDS UNEXPENDED

Funds	Total Assets	Cash	Investments			
			Total	Bonds	Stocks	
					Preferred	Common
Consolidated Plant Funds	31,050.79	882.06	30,168.13	30,140.00		28.13
George Washington Memorial Fund	91,121.52	83,621.52	7,500.00	7,500.00		
Pairo Fund	187,630.02	1,686.82	185,943.20	2,400.00	13,120.00	167,686.75
TOTALS—EXHIBIT A	309,802.33	86,191.00	223,611.33	40,040.00	13,120.00	167,714.88
						2,736.45
						2,736.45

# LAND AND BUILDINGS—INVESTED IN PLANT

For the Year Ended August 31, 1943

Building or Location	Section or Block	Lot	Square Feet	Year Acquired	Balance August 31, 1942	Address	Balance August 31, 1943
Biological Sciences Building Coreman Hall	A	45	102	1914-35	151,129.97		151,129.97
	B	43	102	1919-24	327,481.92		327,481.92
Field House Site		5-13-15-17-19					
		24-25-26-28					
		800-801-802					
		805 thru 821					
		823 (141-147)					
Gymnasium Hall of Gymnasium		828-834-836					
		838-839-842	56	1936-43	192,410.00	6,500.00	198,910.00
		825-827	102	1924-25	58,331.44		58,331.44
		47-800-801	79	1918-38	239,035.63		239,035.63
		40-829-830-831	79	(*)	665,307.00		
Lisner Auditorium		A-B-17-32					
		820 thru 827					
		832-833					
		815-816-817					
		818-819					
Lisner Hall Mechanical Laboratories School of Medicine and Hospital Social Sciences Building	A	43	79	1929-40	772,134.95	68,379.62	775,207.57
			102	1912-39	372,230.19		372,230.19
			102	1923-30	57,583.87		57,583.87
			1250	1882-1932	974,520.00	331.00	974,851.00
Sorority Hall—2129 G Street, NW Sorority Hall—802 21st Street, NW Staughton Hall Staughton Hall	A	24-25-28-29-30	102	1922-36	269,279.60		269,279.60
		31-32-800-801	79	1936	36,989.72		36,989.72
		35	77	1938	13,000.00		13,000.00
		834-835	79	1941	43,000.00	8,640.00	51,640.00
		834-835	102	1920-25	279,325.93		279,325.93
Staughton Hall		19-20-818-819	80	1925-36	247,186.90		247,186.90

G Street NW—2003	27	102	1936	11,700.00	11,700.00	11,700.00
" 2024	16	103	1922	14,955.00	14,955.00	14,955.00
" 2026	15	103	1929	15,074.96	15,074.96	15,074.96
" 2033	805-806	102	1922	32,500.00	32,500.00	32,500.00
" 2106	817	80	1937	19,000.00	19,000.00	19,000.00
" 2109	802	79	1938	55,646.21	55,646.21	55,646.21
" 2111	4 803	79	1938	60,000.00	60,000.00	60,000.00
" 2121	804	79	1939	10,146.50	10,146.50	10,146.50
" 2131	8	79	1935	25,500.00	25,500.00	25,500.00
" 2135 (deposit)	807	79	1943	5,250.00	5,250.00	5,250.00
H Street NW	824	102	1922	14,000.00	14,000.00	14,000.00
" 2016	823	102	1929	14,250.00	14,250.00	14,250.00
" 2018	822	102	1933	11,750.00	11,750.00	11,750.00
" 2018 1/2	821	102	1933	31,066.71	31,066.71	31,066.71
" 2020 1/2	819 820	102	1928	12,000.00	12,000.00	12,000.00
" 2024	818	102	1924	10,200.00	10,200.00	10,200.00
" 2026	829	102	1925	11,000.00	11,000.00	11,000.00
" 2027	815	101	1941	23,500.00	23,500.00	23,500.00
" 2037	817	101	1940	12,500.00	12,500.00	12,500.00
" 2113	804	77	1940	1,500.00	1,500.00	1,500.00
" 2142	19	79	1935	3,000.00	3,000.00	3,000.00
" 2142 1/2	815	79	1940	10,750.00	10,750.00	10,750.00
" 2500	817	42	1942	10,000.00	10,000.00	10,000.00
I Street NW—2038	840	101	1942	10,000.00	10,000.00	10,000.00



# LAND AND BUILDINGS—INVESTED IN PLANT (Continued)

For the Year Ended August 31, 1943

Building or Location	Subject to Trust Note Payable	Lot	Square	Year Acquired or Erected	Balance August 31, 1942	Additions	Balance August 31, 1943
20th Street NW—700		26	102	1931	17,500.00		17,500.00
" 712	A	42	102	1929	14,240.00		14,240.00
" 714	A	41	102	1930	14,500.00		14,500.00
" 716	A	40	102	1929	13,500.00		13,500.00
" 718		828-830	102	1929	20,000.00		20,000.00
21st Street NW—49-60S		21-22	80	1935	12,500.00		12,500.00
" 713	A	807	102	1931	12,000.00		12,000.00
" 714		46	79	1931*	40,000.00		40,000.00
" 715	A	808	102	1929	12,000.00		12,000.00
" 716	A	830-831	79	1933*	8,885.00		8,885.00
" 718		829	79	1939*	16,422.00		16,422.00
" 810		31	77	1938	9,000.00		9,000.00
22nd Street NW—715		24	79	1939	8,190.00		8,190.00
" 717		25	79	1940	10,143.00		10,143.00
" 725		812-813	79	1938	8,750.00		8,750.00
" 727		814	79	1937	4,750.00		4,750.00
23rd Street NW—706		827	42	1942	100.00	3,575.00	3,675.00
" 734		819	42	1942	4,500.00		4,500.00
" 736		818	42	1942	3,000.00		3,000.00
TOTAL—EXHIBIT A					4,613,602.50	87,885.62	4,701,488.12

# TRUST NOTES PAYABLE

SECURED BY  
LAND AND  
BUILDINGS

	PAYEE AND DATE DUE	INTEREST RATE	PRINCIPAL
A	RIGGS NATIONAL BANK \$6,250 due September 23 and quarterly thereafter until September 23, 1946, when the remaining balance is due. . . . .	4½%	151,250 00
B	WASHINGTON LOAN AND TRUST CO. Due \$4,000 December 14, 1943, and \$192,000 December 14, 1944. . . . .	4%	196,000 00
C	GEORGE WASHINGTON UNIVERSITY ENDOWMENT FUNDS (Schedule 4—Page 2) Due December 1, 1920 . . . . .	0	323,430.23
D	AMERICAN SECURITY AND TRUST CO. \$5,000 due each December 17 until December 17, 1945, when the remaining balance is due. . . . .	4%	125,000 00
TOTAL—EXHIBIT A. . . . .			795,680.23

# EQUIPMENT—INVESTED IN PLANT

For the Year Ended August 31, 1943

	BALANCE August 31, 1942	ADDITIONS AND ADJUSTMENTS 1941-42	BALANCE August 31, 1943
Administration	55,744 00	1,326 35	57,070 35
Arts and Sciences	84,456 57	1,896 45	86,353 02
Duplicating Bureau	1,774 50		1,774 50
Engineering, Science, and Management War Training*	10,792 34	1,218 73	12,011 07
Gymnasium	2,625 16	99 91	2,725 07
Hospital	45,512 82		45,512 82
Law School	1,739 63		1,739 63
Library Books			
Arts and Sciences	65,037 79	3,686 34	68,724 13
Law School	50,963 50	2,993 60	53,957 10
School of Medicine	12,569 15	806 46	13,375 61
School of Pharmacy	1,745 76	29 05	1,774 81
Upper Auditorium	37,551 00	27,396 55	64,947 55
Yvonne Hall	24,298 69	96 77	24,395 46
Medical Laboratory	19,951 45	944 76	20,896 21
Medical Library	894 01	(-894 01)	
School of Medicine	51,003 86	3,246 84	54,250 70
School of Pharmacy	5,898 69	323 86	6,222 55
Slaughter Hall Dormitory		6,124 17	6,124 17
Strong Hall	18,117 63		18,117 63
Student Club—University	6,413 89	533 25	6,947 14
<b>Total—Exhibit A</b>	<b>497,090 44</b>	<b>49,829 08</b>	<b>546,919 52</b>

\*Title is held by the University subject to disposal of the equipment by the Director of Engineering, Science, and Management War Training.





# CURRENT FUNDS RESTRICTED—UNEXPENDED

For the Year Ended August 31, 1943

UNIVERSITY FUNDS	Balance August 31, 1942	Receipts or Refunds	Disbursements			Balance August 31, 1943 Exhibit C
			Salaries	Other Expense	Total	
ORGANIZED RESEARCH						
School of Medicine						
Baxter Laboratories	500.00	3,805.00	3,693.67	121.20	3,814.87	490.13
Cardiology Research Fund		1,500.00	866.64	30.17	896.81	603.19
Cecilia Cummings Fund	1,700.14	1,200.00	300.00	58.00	358.00	2,542.14
Difco Laboratories—Dr. Choesser	150.00	(-150.00)				
Difco Laboratories—Dr. Roe	256.15		30.00	45.10	75.10	181.05
Food and Drug Administration		750.00	750.00		750.00	
Hutchins, Helen F., Fund	35.50					35.50
Lederle Laboratories		10,750.00	4,700.02	1,237.36	5,937.38	4,812.62
Muthers' Health Clinic		692.60		677.30	677.30	15.30
Sandoz Chemical Co. Fund		250.00	24.00	87.15	111.15	138.85
School of Pharmacy						
Certified Products, Inc.	89	150.00				150.89
Centaur Co., Chattanooga Medicine Co. Fund		2,940.00	2,200.00	540.92	2,740.92	219.08
Easterday Fund	14.34			14.34	14.34	
Proprietary Association	33.78	5,850.00	5,200.00	640.50	5,840.50	23.28
Riedel-de-Haen Fund	73.33			12.80	12.80	60.53
United States Government						
Navy Department		6,161.46	5,912.55	2,248.91	6,161.46	
Bureau of Naval Ordnance						
Office for Emergency Management		234,739.85	110,980.84	113,231.68	224,212.52	10,527.33
Office of Scientific Research and Development						
incent	2,764.15	268,468.91	132,657.72	118,965.45	251,623.15	19,799.89

Administrative Reserve Fund.....  
Insurance Square Club Fund.....  
Kellogg Medical Technology Scholarship Fund.....

	3.18				3.18
Administrative Reserve Fund.....	100 00	2,000 00	Refunds	133.50	3.18
Insurance Square Club Fund.....	281.75	126.50	To Schedule 1	50.00	100.00
Kellogg Medical Technology Scholarship Fund.....	3,071.70		To Schedule 1	50.00	2,000.00
Key Deposits.....	310.71		To Schedule 1	6,044.40	274.75
Kimmel Hospital Fund.....			Scholarships	112.00	3,071.70
Planning and Heating Institute.....			Fellowships	897.30	310.71
University Press.....			Pharmacy Books	29.05	
For publication of "Management Policy".....	50.00	50.00	To Schedule 1	56.66	
Receipts from sales of "The Supreme Court".....	82.94		To Schedule 1	77.10	
W. O. N. A. R. D. Fund.....	50.00		Expenses	4,350.30	
Worth Fund.....	6,044.40	224.00		495.00	
Hattaway-Dorsey Scholarships.....	324.00	510.00	Supplies	21.93	
Dr. Ferguson and Wife, Jr.'s wishes.....	505.43		Employment	7.50	
Women's Auxiliary, D. C. Pharmaceutical A.....	35.71	50.00			
Hospital.....					
Activity Relief Club (Refer to Exhibit B*).....	75.00	58.77*			
Mrs. Hattie M. Strong.....	4,810.02	475.00			
General Fund, M. Watson.....					
Platinum Bowl Deposits.....	159.56	505.50			
Women's Board.....		35.00			
	15,894.30	5,984.77			
				12,733.15	7,155.92

American Association of University Professors.

American Association of University Professors	31.44	22.00	14.50	38.91
Cherry Blossom Drive		504.59	504.59	
Engineers' Club Room Fund		199.93		199.93
Engineers' Library Fund		45.00		45.00
Federal Writers Project				
Ge. W. U. Flower Fund		158.07	158.07	
Order of Artus	17.00			17.00
Phi Beta Kappa Fraternity	15.41	100.57		15.41
Phi Eta Sigma Fraternity		140.00	25.92	74.65
Phi Gamma Mu Fraternity	56.98	196.38	112.15	27.85
Swisher History Club	120.75		231.65	21.71
	241.58	1,396.54	1,046.88	561.24

CURRENT FUNDS RESTRICTED—UNEXPENDED (Continued)  
For the Year Ended August 31, 1943  
INCOME OF ENDOWMENT AND PLANT FUNDS

Funds	Balance August 31, 1942	Net Income for Year	DISPOSITION			Balance August 31, 1943 Exhibit C
			Current Operations	Added to Principal	Transfers	
ENDOWMENT FUNDS (Schedule II)						
UNRESTRICTED						
Alcott		11.48	11.38			
Alumni Endowment		20.79	20.79			
Chapman 1923-24		7,083.37	7,083.37			
Corporation		8,352.49	8,352.49			
Haggett		37.94	37.94			
King, W. B.		719.80	719.80			
Subscription Gifts 1845-51		475.18	475.18			
Syma		56.91	56.91			
Trotter		50.11		50.11		
Withers		1,020.18	1,020.18			
			17,778.04			
SCHEDULE I						
Restricted						3,223.78
Frederick	2,783.41	7,448.37	7,008.00			
Snyder		31.47	31.47			
Professorship		18.96				156.82
Alumni Professorship		6,020.94	6,020.94			
Carroll	137.86	6,122.31	6,000.00	322.31		
Constitutional			550.40			
Dixon		550.40				
Elton		189.68				
Yulee	2,424.34					2,614.02
School						
Government		38,104.11	38,369.84			
Scottish Rite	265.73					
Medical		97.29		97.29		
Borden		379.37				
Cooper	3,857.40	170.21	170.21			
Gardner		2,190.23	1,190.23			
Lewis		157.86	157.86			
School of Medicine Fund		226.22	226.22			
Sharpe		379.37	379.37			
Pharmacy				1,000.00		
Gibbs						4,276.77

[illegible]





# PLANT FUNDS

Class of 1929 Women's Unit No. 1  
 Duplicating Bureau Equipment  
 Engineers' Club Room  
 General Buildings  
 Ohio Section of The George Washington Memorial Association  
 Puerto Rico  
 Schwab  
 Student Union Furnishings  
 Women's Activities Building  
 RETIREMENT OF INDIVIDUALS  
 Reserve for Reduction of the Note Payable of Current and Plant Funds to Endowment Funds  
 Principal

7.21	7.21	7.21	7.21	7.21
60.70	60.70	60.70	60.70	60.70
6.47	6.47	6.47	6.47	6.47
5.08	5.08	5.08	5.08	5.08
28.13	28.13	28.13	28.13	28.13
5,263.08	5,263.08	5,263.08	5,263.08	5,263.08
51.47	51.47	51.47	51.47	51.47
31.86	31.86	31.86	31.86	31.86
49.66	49.66	49.66	49.66	49.66
377.46	377.46	377.46	377.46	377.46
54,359.72	54,359.72	54,359.72	54,359.72	54,359.72
95,655.00	95,655.00	95,655.00	95,655.00	95,655.00
89,110.08	89,110.08	89,110.08	89,110.08	89,110.08
37.94	37.94	37.94	37.94	37.94
58,554.40	58,554.40	58,554.40	58,554.40	58,554.40

\* The Puerto Fund is functioning both as an Endowment Fund and a Plant Fund. Income is used for Athletics.  
 † Income added to Principal of D.C. D.A.R. Loan Fund (Schedule 10)  
 ‡ Income transferred to The Women's Board of The George Washington University Hospital.  
 † \$3,719.34 expended for Scholarships is included in "Student Fees," on Schedule 1.



# CHANGES IN PRINCIPAL OF LOAN FUNDS

For the Year Ended August 31, 1943

Funds (Description on page 72)	Balance August 31, 1942	Increases				Decreases Transferred to Current Funds (Schedule 1)	Balance August 31, 1943
		Income of D.C.—D.A.R. Endowment Fund	Gifts Refer to Page 71	Interest on Loans	Received from U. S. Government		
D.C.—D.A.R. Loan Fund	148.15	189.68		.69			1,678.50
George Willoughby Law Association Loan Fund	377.00						577.00
Home Economics Loan Fund	77,000		43.00				115.00
Kenneth McCall School Loan Fund	12,000.00		5,000.00				15,000.00
Kenneth McCall School Loan Fund			2,000.00				2,000.00
Plattsmouth Loan Fund	133.69					155.69	
St. Louis Loan Fund	7,293.94		900.00	20.88			8,014.82
Superior Medical School Loan Fund	275.00				17,782.66		1,175.00
War Loan Fund							17,782.66
TOTALS—EXHIBIT D	20,559.76	189.68	7,943.00	21.57	17,782.66	155.69	46,140.98



# CHANGES IN PRINCIPAL OF ENDOWMENT FUNDS

For the Year Ended August 31, 1943

ENDOWMENT FUNDS (Description on pages 73-79)	Balance August 31, 1942	Increases			Balance August 31, 1943
		Gifts	Investment Income	Gain on Sale of Investments	
<b>UNRESTRICTED</b>					
Alker	300.00				300.00
Alumni Endowment	542.00	39.20			581.20
Campaign, 1923-24	186,714.38				186,714.38
Concedan	220,155.76				220,155.76
Huggett	1,000.00				1,000.00
King, W. B.	15,000.00				15,000.00
Subscription Gifts, 1845-51	12,525.56	4,464.69			17,444.69
Syns	1,500.00				1,500.00
Trustees	1,321.11		50.11		1,371.22
Withers	26,891.46				26,891.46
<b>RESTRICTED</b>					
Fellowship					
Salaries					
Professorship					
Alumni Professorship	205,973.77		188.99		206,162.76
Cath	829.49				829.49
Congressional	500.00				500.00
Drew	158,709.04				158,709.04
Fellow	164,732.29		322.31	80.63	165,135.13
Fisher	14,508.19				14,508.19
Yaler	5,000.00				5,000.00
<b>School</b>					
Government					
Scottish Rite	1,000,000.00				1,000,000.00
Medical					
Borden	2,564.53		97.29		2,661.82
Cooper	10,000.00				10,000.00
Gardner	4,486.55				4,486.55
Lewis	102,000.00		1,000.00		103,000.00
School of Medicine Fund	8,000.01	300.00			8,300.01
Sharpe					
College	10,000.00				10,000.00
<b>Medical</b>					
Landmark	1,000.00				1,000.00
Graduate	5,000.00				5,000.00
Graduate	10,000.57	393.00			10,411.57
Graduate	2,000.00				2,000.00





[illegible]

## RECAPITULATION OF CHANGES IN PRINCIPAL OF FUNDS FOR PLANT ADDITIONS

Increases		Decreases	
A Investment Income	275.42	A Transferred to S and G	6,121.10
B Interest on Property	68,350.00	B Purchases paid for	200.00
C Rent and Interest on Capital B	61,000.00	C Transferred to S and G	1,000.00
D Cash	10,700.89	D Land and B—Income—Transferred to P	244.93
		E Land—Income	68,250.00
		F Land—Income—Transferred to P	74,620.62
		G Interest on Property	27,170.55
		H Transferred to S and G	68,350.00
		I Transferred to S and G	4,000.00
		J Land—Income and Transferred to	3,100.08
Total—Exhibit F	141,597.31	Total—Exhibit F	181,908.28



# GIFTS—PURPOSE AND DONOR

For the Year Ended August 31, 1943

CURRENT FUNDS			
EDUCATIONAL AND GENERAL			
UNRESTRICTED—SCHEDULE 1			
Gerstenberg, Charles W.			100.00
Restricted			
Schedule 1			
Alumni Office Expense—General Alumni Association		100.00	
Library Books	Amson, Joseph D.	20.00	
"	Koser, Dr. Paul R.	50.00	
"	Martin, Board	20.00	
"	Smith, Dr. D. F.	20.00	
"	Strong, Richard P.	25.00	
"	Women's Auxiliary, D. C. Pharmaceutical Association	25.00	
Pharmacy Expense—Frederick J. Cochrane		2,784.05	
Sittler, Brian—National Research Council		301.97	
Fellowships in Neurology—Drs. Freeman and Watts*			
Schedule 1			
Original Research—Various donors		208.65	
Scholarships—Kaiser Medical Technology Scholarships Fund		2,000.00	
Deborah, 1943-44			
• Frederick, Drs. Freeman and Watts		208.03	
• Liberty, Drs. Watson's Auxiliary, D. C. Pharmaceutical Association		27.75	
• Scholastic, Dr. Harrison Dueser		224.00	
Hospital—Watson's General Edwin M.†		100.00	
Watson's Board, equipment‡		27.50	
ACTIVITIES RELATING TO INSTRUCTIONAL DEPARTMENTS			
Hospital—Schedule 1			
▲ Watson, General Edwin M.		465.00	
‡ Women's Board, equipment		7.50	
‡ American Legion Auxiliary		36.00	
Women's Board, supplies		505.50	
Estate of Mary C. Foster		562.50	
		271,149.39	274,335.41



## DESCRIPTION OF LOAN FUNDS

August 31, 1943

<p><b>DISTRICT OF COLUMBIA D. A. R. LOAN FUND</b>          Created from income of the D. C.—D. A. R. Endowment Fund. To be loaned to descendants of patriots of the American Revolution.</p>	<p>\$1,673.50</p>	<p><b>KELLOGG MEDICAL TECHNOLOGY LOAN FUND</b>          Gift of W. K. Kellogg Foundation in 1943, to be loaned to Medical Technologists in Training at the School of Medicine.</p>	<p>\$2,000.00</p>
<p><b>GEORGE WASHINGTON LAW ASSOCIATION LOAN FUND</b>          Gift of the George Washington Law Association to be loaned to students of the Law School.</p>	<p>\$377.00</p>	<p><b>STUDENT LOAN FUND</b>          Created by the University to make short time loans for educational purposes.</p>	<p>\$8,014.82</p>
<p><b>HOME ECONOMICS LOAN FUND</b>          Created in 1940 by the D. C. Home Economics Association to be loaned to senior girls majoring in Home Economics.</p>	<p>\$118.00</p>	<p><b>SUTHERLAND LOAN FUND</b>          Created in 1941 by gifts of various donors, to be loaned to students of the School of Medicine.</p>	<p>\$1,175.00</p>
<p><b>KELLOGG LOAN FUND</b>          Gift of the W. K. Kellogg Foundation to be loaned to students of the School of Medicine.</p>	<p>\$15,000.00</p>	<p><b>WAR LOAN FUND</b>          Created in 1942 by the United States Government to be loaned to students in technical and professional fields of National Defense.</p>	<p>\$17,782.66</p>

— 72 —

## DESCRIPTION OF ENDOWMENT FUNDS

August 31, 1943

RESERVES FOR PROTECTION OF INVESTMENTS OF ENDOWMENT FUNDS	
<p><b>RESERVE FOR PROTECTION OF CONSOLIDATED ENDOWMENT FUNDS INVESTMENTS</b>          Created from gains arising from the sale of investments, and by setting aside annually a portion of the net income of Consolidated Endowment Funds assets.</p>	<p>\$38,724.26</p>
<p><b>RESERVE FOR PROTECTION OF SCOTTISH RITE ENDOWMENT FUND INVESTMENTS</b>          Created from gains arising from the sale of Scottish Rite investments.</p>	<p>\$44,073.70</p>

# UNRESTRICTED FUNDS

## ACKER FUND

Request of George N. Acker, M. D., received in 1924, the income only to be used.

## KING, W. B., FUND

Gift of William B. King, received in 1941 and 1942, the income only to be used.

## ALUMNI ENDOWMENT FUND

Established by the Class of 1920, to be added to by succeeding graduating classes, the income only to be used.

## SUBSCRIPTION GIFTS FUND 1845-51

Raised by authority of the Trustees of Columbian College by general subscription between the years 1845-51, the income only to be used. (Formerly called the Poindexter Endowment Fund.)

## CAMPAIGN FUND 1923-24

Receipts from various donors, the income only to be used.

## SYMS FUND

Bequest of Samuel Syms of West Hoboken, New Jersey, in 1891, the income only to be used.

## CORCORAN FUND

Raised by authority of the Trustees of Columbian College and Columbian University between the years 1871-86, William W. Corcoran, giving \$112,000 and the balance being obtained by general subscription, the income only to be used.

## TREASURY FUND

Established by the Board of Trustees of the University in 1933, the income only to be used.

## WITHERS FUND

Raised by authority of the Trustees of Columbian College between the years 1851-70, John Withers of Alexandria, Virginia, giving \$16,000, the balance being obtained by general subscription, the income only to be used. (Formerly called the Forty Thousand Dollar Endowment Fund.)

## HAGGETT FUND

Gift of Isabelle Barnes Haggett in 1941, the income only to be used.



# DESCRIPTION OF ENDOWMENT FUNDS (Continued)

August 31, 1943

## PROFESSORSHIP FUNDS

### ALUMNI PROFESSORSHIP FUND

Gifts of various alumni since 1911, the income to be used for the endowment of an alumni professorship in mathematics.

\$829.49

### CARROLL PROFESSORSHIP FUND

Established by Mary A. Sharpe in 1928, in memory of Mitchell Carroll, the income to be used to provide revenue for a chair in Archeology.

\$500.00

### CONGRESSIONAL PROFESSORSHIP FUND

Gift of the United States in 1832, by Act of Congress, of \$25,000 in city lots in Washington, D. C., to be sold, the proceeds invested, and the income to be used for professorships.

\$158,709.04

### DEPEW COURSE IN

#### PUBLIC SPEAKING FUND

Created by May Depew in 1936, the income to be used for the maintenance of a course to be known as the "Chauncey M. Depew Course in Public Speaking".

\$165,135.23

### ELTON PROFESSORSHIP FUND

Bequest of Romeo Elton of Exeter, England, in 1872, the income to be used for a professorship of mental and moral philosophy, to be called the "Elton Professorship of Mental and Moral Philosophy".

\$14,508.19

### YULEE ENDOWMENT FUND

Bequest of Nannie Yulee Noble in memory of her mother, Nancy Yulee, in 1929, the income to be used for lectures in home economics.

\$5,000.00

## MISCELLANEOUS FUNDS

### ART AND ARCHEOLOGY FUND

Established by the Board of Trustees in 1927, the income to be used in the "Support of the School of Classical Studies at Athens as long as the Board desires to contribute to this cause."

\$1,000.00

### GRADUATE ENDOWMENT FUND

Created by the Class of 1926 to be used for the acquisition of sites, erection of buildings, and maintenance and purchase of equipment. Only the income may be used until Fund reaches \$50,000 when income, and principal over \$50,000, may be used.

\$10,481.57

### SWISHER ALCOVE BOOK FUND

Gift of Dr. Charles Clifton Swisher, in trust for the Historical Society of the University, the income to be used for the purchase of books for the Swisher Alcove in the Library.

\$2,000.00

DIRECTOR OF COLUMBIA D. A. R. FUND  
Gift by bequest in the Director of Columbia, the income to be added to the D. C.—D. A. R. Loan Fund.

\$5,000.00

## GOVERNMENT

## SCOTTISH RITE ENDOWMENT FUND

**\$1,000,000.00**  
 Created by indenture December 27, 1928, by the Supreme Council of the Ancient and Accepted Scottish Rite of Freemasonry of the Southern Jurisdiction of the United States of America, as a permanent memorial to George Washington, The Mason. To be invested and the income used to establish and maintain a School or Department of Government.

## MEDICAL

## BORDEN MEDICAL FUND

**\$2,661.82**  
 Created in 1912, by William Cline Borden, M. D., and Jeanne Ella Borden, and since added to by Daniel LeRay Borden, the income to be applied to lectureships in medical science to be known as the "William Cline Borden Lectures on Surgery or Medical Science."

## COOPER MEDICAL RESEARCH FUND

**\$10,000.00**  
 Bequest of Eleanor J. Cooper in 1905, on certain terms since modified by the Supreme Court of D. C. as follows: the income to be used toward the establishment and maintenance, in connection with the Medical Department of the University, of a Research Laboratory, the work of this laboratory to be devoted to the investigation of the nature, causation, prevention, and cure of malaria and other infectious and contagious diseases.

## MEDICAL—(Continued)

## GARDNER MEDICAL SCHOOL FUND

**\$4,486.55**  
 Bequest of William D. Gardner, received in 1928, the income to be used toward the support of the School of Medicine.

## LEWIS MEDICAL SCHOOL FUND

**\$106,000.00**  
 Bequest of Samuel F. Lewis, received in 1925, the income to be used toward the support of the School of Medicine.

## SCHOOL OF MEDICINE ENDOWMENT FUND

**\$4,320.00**  
 Created in 1940 by the gifts of various donors, the income to be used for the development of the program of the School of Medicine.

## SHARPE MEDICAL SCHOOL FUND

**\$8,000.01**  
 Gift of Mary A., Elizabeth M., and Sallie Sharpe in 1924, the income to be used for the School of Medicine.

## PHARMACY

## GIBBS PHARMACY FUND

**\$10,000.00**  
 Gift of M. G. Gibbs in 1927, the income to be used to aid in establishing and maintaining a commercial pharmacy course in connection with the School of Pharmacy.

# DESCRIPTION OF ENDOWMENT FUNDS (Continued)

August 31, 1943

## HOSPITAL FUNDS

**CHAPMAN HOSPITAL FUND** \$1,225 90  
Request of Mrs. Susanna A. Chapman in 1911, the income to be used for the purposes of the free wards of the University Hospital.

**GENERAL HOSPITAL ENDOWMENT FUND** \$100 00  
Request of L. M. Cassanowicz, M. D., received in 1929, the income to be used toward the support of the University Hospital.

**KUHNBANK HOSPITAL FUND** \$953 99  
Request of Freda Kuhlbank, received in 1930, the income to be added to the principal until the principal shall be large enough to maintain a bed in the White Ward of the Hospital to be known as the "Freda Kuhlbank Bed".

**NATIONAL PARK SEMINARY HOSPITAL FUND** \$500 00  
Gift of students of National Park Seminary of Forest Glen, Maryland, in 1906, the income to be used toward the maintenance of a bed in the University Hospital.

## PRIZE FUNDS

**BURNS MEMORIAL AWARD FUND** \$1,000 00  
Gift of Persia Burns in 1937 in memory of her son, Byrne Thurtell Burns, the income to be used for an annual award in chemistry.

**COWLES PRIZE FUND** \$2,000 00  
Gift of John Henry Cowles in 1943, the income to be used for annual awards in the School of Government.

**CROSBANT PRIZE FUND** \$1,000 00  
Request of John Henry Crosbant, received in 1941, the income to be used to award an annual prize for excellence in dramatic or dramatic studies.

**REINHARDT HOSPITAL FUND** \$500 00  
Request of Luisa Wyner Reinhardt in 1922, the income to be used for the benefit of the University Hospital.

**TREE HOSPITAL FUND** \$10,000 00  
Request of Lambert M. Tree of Chicago, in 1911, in memory of his mother, Mrs. Laura M. Tree, the income to be used to support and maintain one or more beds in the University Hospital, to be known as the "Laura M. Tree Bed or Beds".

**WOMEN'S BOARD HOSPITAL FUND** \$1,000 00  
Gift of the Women's Board of The George Washington University Hospital in 1925, the income to be used by the Women's Board for the benefit of the University Hospital.

**WOODBURY HOSPITAL FUND** \$10,000 00  
Request of Ellen DeQ. Woodbury in 1909, the income to be used for the reception and treatment of female patients in the University Hospital.

**HUBBARD PRIZE FUND** \$1,000 00  
Gift of Gertrude M. Hubbard in 1907, in memory of her husband, Gardiner G. Hubbard, the income to be used for an annual award for excellence in American history.

**LARNER PRIZE FUND** \$800 00  
Request of John B. Larnet in 1933, the income to be used for an annual award in the Law School.

**ODRONAUX PRIZE FUND** \$5,000 00  
Request of J. de Odranax of Glen Head, New York, in 1934, the income to be used for annual awards in the Law and Medical schools.



#### CUTLER PRIZE FUND

Gift of Marion Kendall Cutler in 1902, in memory of F. K. Cutler, the income to be used for an annual award for excellence in the study of English. \$1,000.00

#### DAVIS PRIZE FUND

Gift of Isaac Davis of Worcester, Massachusetts, in 1847, the income to be used for annual awards to members of the senior class who have made the greatest progress in elocution since their connection with the College. \$700.00

#### EVANS MEMORIAL AWARD FUND

Gift of friends of Joshua Evans III, the income to be used to establish a prize, as a memorial to an "outstanding life," to be awarded annually "to that man in the graduating class of The George Washington University who has demonstrated his special ability in the social and political sciences and who has given promise of the interpretation of that ability in good citizenship among his fellows." \$1,100.00

#### FITCH PRIZE FUND

Gift of James E. Fitch in 1883 in memory of Willie E. Fitch, the income to be used for an annual award to a senior student for the best general examination in chemistry. \$1,000.00

#### GODDARD PRIZE FUND

Gifts of Mary W. Goddard, Alice Douglas Goddard and Frederick J. Goddard of Georgetown, D. C., in 1923, in memory of Morgan Richardson Goddard, Edward Carleton Goddard and James Douglas Goddard; added to in 1941 by a gift of Frederick J. Goddard in memory of Alice Douglas Goddard. The income shall be used to award four cash prizes annually to the students making the highest averages in commerce, French language and literature, pharmacy, and American literature, respectively. \$5,519.00

#### RUGGLES PRIZE FUND

Gift of William Ruggles (at one time Acting President of Columbian College) in 1859, the income to be used for an annual award for excellence in mathematics. \$500.00

#### STAUGHTON-ELTON PRIZE FUND

Gifts of Romeo Elton of Exeter, England, in 1860 and 1865, the income to be used for annual awards for excellence in the Latin and Greek languages, one to be called the Staughton Prize in Latin, the other the Elton Prize in Greek. \$500.00

#### STURRETT PRIZE FUND

Gift of the Reverend J. MacBride Sturrott, in 1911, in memory of his son, J. MacBride Sturrott, Jr., the income to be used for a gold medal to be awarded annually to the student obtaining the highest average in general physics. \$300.00

#### SWISHER PRIZE FUND

Gift of Charles Clinton Swisher, the income to be applied yearly to choosing the score set apart for the Hunsford Prize established in his name by the Historical Club, December 7, 1936. \$1,000.00

#### WALSH PRIZE FUND

Gift of Thomas F. Walsh of Washington, D. C., in 1901, the income to be used for an annual award for the best essay on some topic in Irish history. \$1,000.00

#### WINDLELL PRIZE FUND

Gift of Virginia Chase Windlell in 1923, the income to be used to award annually the Alexander Williamson Windlell Prize to the student submitting the best essay upon the general subject of the promotion of peace among the nations of the world. \$5,000.00



# DESCRIPTION OF ENDOWMENT FUNDS (Continued)

August 31, 1943

## SCHOLARSHIP FUNDS

<p><b>ANDREWS MEMORIAL SCHOLARSHIP FUND</b>                      Gift of Belle Fisk Andrews in 1920 in memory of her husband, Byron Andrews, the income to be used for scholarships "for ambitious and needy students of English, Latin, journalism, history, literature, or political science".</p>	\$5,000.00	<p><b>KENDALL SCHOLARSHIP FUND</b>                      Gift of Angus Kendall in 1869, the income to be used for a scholarship now designated by the Board of Trustees as one of the two High School Scholarships assigned to Central High School.</p>	\$5,959.61
<p><b>BROWN SCHOLARSHIP FUND</b>                      Created by the College Women's Club of Washington, D. C. in 1915, in memory of Elizabeth V. Brown, the income to be used for scholarships in the School of Education.</p>	\$1,200.00	<p><b>KING MEMORIAL SCHOLARSHIP FUND</b>                      Bequest of Isabella O. King, received in 1928, the income to be used to provide a fellowship in biology.</p>	\$39,457.56
<p><b>CARR SCHOLARSHIP FUND</b>                      Bequest of Emma K. Carr of Moorefield, West Virginia, in 1912, the income to be used for scholarships for young white men.</p>	\$50,260.61	<p><b>KNAPP SCHOLARSHIP FUND</b>                      Gift of the Columbian Women of the George Washington University in 1915, in memory of Nellie Maynard Knapp, the income to be used for scholarships for women.</p>	\$5,000.00
<p><b>CARTER, H. H., SCHOLARSHIP FUND</b>                      Gift of Maria M. Carter in 1896, in memory of her husband, Henry Harding Carter, the income to be used for scholarships in Civil Engineering.</p>	\$5,000.00	<p><b>MORRIS SCHOLARSHIP FUND</b>                      Gift of A. Morehouse in 1861, the income to be used for scholarships for undergraduates intending to enter the Christian ministry.</p>	\$1,500.00
<p><b>CARTER, M. M., SCHOLARSHIP FUND</b>                      Gift of Maria M. Carter in 1871, the income to be used for a scholarship for a young man.</p>	\$1,000.00	<p><b>POWELL SCHOLARSHIP FUND</b>                      Gift of Levin M. Powell in 1886, the income to be used to train young men for entrance in the United States Naval Academy or to fit them to become mates and masters in the Merchant Marine Service of the United States.</p>	\$41,731.90
<p><b>CHAMBERLIN SCHOLARSHIP FUND</b>                      Created by the Columbian Women of The George Washington University in 1902, in memory of George R. Chamberlin, the income to be used for scholarships for young women.</p>	\$2,300.00	<p><b>SANDERS FELLOWSHIP FUND</b>                      Bequest of Addie Sanders in 1928 in memory of her brother, Thomas Bradford Sanders, the income to be used for annual fellowships in various academic fields of study.</p>	\$206,162.76

**COLLEGE WOMEN'S SCHOLARSHIP FUND** \$500.00  
*Gift of the College Women's Club of Washington, D. C., in 1926, the income to be used for scholarships.*

**DAVIS SCHOLARSHIP FUND** \$1,000.00  
*Gift of Isaac Davis of Worcester, Massachusetts, in 1869, the income to be used for a scholarship.*

**FARNHAM SCHOLARSHIP FUND** \$1,000.00  
*Gift of Mrs. Robert Farnham in 1871, the income to be used for a scholarship in Columbian College.*

**FOUNDERS OF COLUMBIAN WOMEN SCHOLARSHIP FUND**

Created by the Columbian Women of The George Washington University in 1920, the income to be used for scholarships for women in Columbian College.

**HARVEY SCHOLARSHIP FUND** \$5,000.00  
*Bequest of Emma Elizabeth Harvey in memory of her daughter, Phoebe Lewis Harvey, received in 1923, the income to be used for a scholarship in Columbian College for young women of the Protestant faith and of the Caucasian race.*

**HERRON SCHOLARSHIP FUND** \$5,000.00  
*Created by the Columbian Women of The George Washington University in 1925 in memory of Lillian Young Heron, the income to be used for scholarships for women in Columbian College. (Formerly Third Columbian Women Scholarship Fund).*

**SPENCER SCHOLARSHIP FUND** \$7,434.20  
*Gift of Louisa J. Spencer, received in 1918, the income to be used for a scholarship.*

**STONE SCHOLARSHIP FUND** \$2,000.00  
*An anonymous gift in 1893 in memory of Mary Lowell Stone, the income to be used for scholarships for women students of science in Columbian College.*

**SWISHER SCHOLARSHIP FUND** \$7,493.79  
*Gift of Dr. Charles Clinton Swisher in 1941, the income to be used to award the Charles Clinton Swisher Scholarship in Medieval History.*

**WALKER SCHOLARSHIP FUND** \$2,500.00  
*Gift of William Walker of Putnam County, Georgia, in 1824, the income to be used for a scholarship for an undergraduate intending to enter the Christian ministry.*

**WILSON SCHOLARSHIP FUND** \$1,000.00  
*Gift of Elizabeth Wilson in 1926 in memory of her parents, Lewis D. and Myrtle H. Wilson, the income to be used for a scholarship in the School of Medicine.*

**WITHINGTON SCHOLARSHIP FUND** \$1,953.13  
*Gift of the New York Baptist Theological Seminary, on behalf of John Withington, of New York in 1880, the income to be used for a scholarship to be named the Withington Scholarship.*

**WOODHULL SCHOLARSHIP FUND** \$400.00  
*Bequest of Ellen M. E. Woodhull, received in 1921, the income to be used for scholarships in Columbian College.*

# DESCRIPTION OF PLANT FUNDS—UNEXPENDED

August 31, 1943

## PLANT ADDITIONS

<b>CLASS OF 1929 WOMEN'S UNIT No. 3 FUND</b>		
Gifts from the women members of the Class of 1929 to be used to aid in the building of Unit No. 3		\$330 36
<b>Duplicating Bureau Equipment Fund</b>		
Created from cash receipts of the Duplicating Bureau to purchase new equipment		\$2,780.42
<b>General Building Fund</b>		
An open subscription fund to be continued and increased indefinitely. To be used for the purchase of sites, buildings, equipment; to remodel and rebuild; and to pay off obligations. Authorized by the Trustees of the University in 1916.		\$238 02
<b>GEORGE WASHINGTON MEMORIAL FUND</b>		
Transfer of the assets of the George Washington Memorial Association to the University to be used toward the erection and equipping of the auditorium		\$91,121.52
<b>OHIO SECTION OF THE GEORGE WASHINGTON MEMORIAL ASSOCIATION FUND</b>		
Gift of the Ohio Section of the George Washington Memorial Association to be used to erect a Memorial		\$1,288 49
<b>PAIRO FUND</b>		
Created by Richard E. Pairo, by devise and bequest, for the use and benefit of Athletics of the University. (Pioneering at present as an Endowment Fund and a Plant Fund—Schedule 9—Page 3)		\$187,030.02
<b>SCHWAB FUND</b>		
Bequest of Marianna F. Schwab to be used for hospital building purposes		\$2,357 28
<b>STUDENT UNION FURNISHINGS FUND</b>		
Created in 1931 by various contributions, to furnish and equip a student union building		\$1,459 53
<b>WOMEN'S ACTIVITIES BUILDING FUND</b>		
Created in 1939 by gifts of various donors to erect a women's activities building		\$2,340 99
<b>RETIREMENT OF INDEBTEDNESS</b>		
<b>RESERVE FOR REDUCTION OF THE NOTE PAYABLE OF CURRENT AND PLANT FUNDS TO ENDOWMENT FUNDS PRINCIPAL</b>		
Created to assist in payment of the George Washington University Trust Note Payable (Schedule 8)		\$17,287 36
<b>RESERVE FOR PROTECTION OF INVESTMENTS OF PLANT FUNDS</b>		
Created from gains arising from the sales of investments, and by having set aside annually (through the year 1937-1938) a portion of the income of Consolidated Plant Funds Investments		\$2,973.34

SUMMARIES OF DOCTORAL THESES

1941-43





#### PREFATORY NOTE

This number of the University BULLETIN contains summaries of the theses which have been accepted during 1941-43, inclusive, in partial satisfaction of the requirements for the degrees of Doctor of Philosophy and Doctor of Education at The George Washington University. The original theses are filed in the University Library, where they may be consulted by students interested in examining the complete texts.

DOCTOR OF EDUCATION		Page
THOMAS COOLEY FERGUSON	The Improvement of the Physical Education Program in the County Schools of Maryland (June 11, 1941)	67
GEORGE HERBERT RICHWINE	An Evaluation of the Adequacy of State Support of Public Education in Pennsylvania (June 11, 1941)	72
HAROLD GLEN CLARK	An Occupational Study of Personnel Workers in Selected Agencies of the Federal Government (February 23, 1942)	78
HENRIETTA GOLDSMITH KORNITZER	The History of Special Education for Physically Handicapped Children on the Atlantic Seaboard (February 23, 1942)	84
CHARLES EDWARD BISH	A Determination of Pupil Shortages in Science, Mathematics, and English as Factors in the Improvement of the Secondary School Curriculum (June 3, 1942)	88
MILDRED SANDISON FENNER	The National Education Association, 1892-1942 (June 3, 1942)	95
HELEN FOX	Student Personnel Work in Schools of Nursing (June 3, 1942)	102
LUCILE MARY HERRICK	A Guidance Program in a Veterans Administration Facility (June 3, 1942)	108
CLARA LOUISE PITTS	Julia Strudwich Tutwiler (1841-1916) (June 3, 1942)	114
GLADYS G. GALLUP	The Effectiveness of the Home Demonstration Program of the Cooperative Extension Service of the United States Department of Agriculture in Reaching Rural People and in Meeting Their Needs (February 22, 1943)	120

SUMMARIES OF THESES SUBMITTED FOR  
THE DEGREE OF DOCTOR OF PHILOSOPHY

1941-43





## THE INFLUENCE OF DISSOLVED SUBSTANCES ON THE INFRARED ABSORPTION OF WATER

by URNER LIDDELL \*

The published work of Ganz, Plyler and his colleagues, and others on the effect of the addition of dissolved substances on the absorption spectrum of water in the infrared led us to believe that valuable information concerning the interactions between these molecules and the water molecules could be obtained by a quantitative examination of the spectra of these solutions as a function of concentration. It had been considered that one particular band in the infrared spectrum of water had its origin in the interaction of two or more water molecules through the mechanism of "hydrogen bridging". A combination of this mode of vibration plus the "angular deformation" frequency of the water molecule gave rise to an absorption band near  $2130\text{ cm}^{-1}$ , a convenient location in the spectrum in which to work. The previous work had not been of a desirable quantitative nature nor of an extended range of added substances; this we have tried to do to some degree.

The very recent work of Darling and Dennison has solved the problem of the spectrum of water vapor, giving the values for the frequencies of the three normal modes of vibration of the isolated water molecule. Cartwright observed an absorption band in liquid water at about  $500\text{ cm}^{-1}$  which he ascribed to the libration known as the "hindered-rotation" of the water molecule. Our observations on the three strongest absorption bands of water check as well as could be expected with the very excellent contemporaneous work of Fox and Martin on these bands. In particular, we had found the maximum of water absorption of most interest to occur at  $2135\text{ cm}^{-1}$  (perhaps more accurately  $2133\text{ cm}^{-1}$ ), while they report  $2128\text{ cm}^{-1}$  for the same band. The absorption in the region from  $1700\text{ cm}^{-1}$  to  $3000\text{ cm}^{-1}$  has been decomposed into symmetrical components after the fashion of Fox and Martin's work on the hydrocarbon bands, and this indicates the presence of an absorption band which may be designated as  $\nu_2 + 2\nu_3$ , the assignment of the  $2130\text{ cm}^{-1}$  being  $\nu_3 + \nu_3$ . A weak absorption maximum was observed at the position where the band due to  $2\nu_3 - \nu_2$  might be expected, namely  $1170\text{ cm}^{-1}$ , but experimental difficulties do not warrant any measure of the exact location or intensity of this band.

Some investigators have considered the effects of the addition of dissolved substances as being similar to the effects of temperature changes on the water structure. Consideration of the literature shows the effects of temperature on the spectrum of water to be rather clear cut. Increasing temperatures produce changes which cause the spectrum to approach

\* A.B. 1946, Central College, Ph.D. awarded February 22, 1947.

the characteristics of the more loosely bound state; however, phase change is accompanied by more abrupt spectral change than is observed for any considerable temperature range. The literature is not so clear on the effect of the addition of substances into solution on the spectrum of water. In many instances, it appears that addition of dissolved substances simulates the effect of an increase of temperature; i.e., increasing the intensity and frequency of those bands whose origin lies primarily in the valence motions of the molecule, decreasing the intensity and frequency of those bands primarily a function of the liquid state (intermolecular bands). The addition of very large amounts of dissolved substances (more commonly referred to as solutions of water in these substances) causes the spectrum to approach that of the vapor state. However, the magnitude of these shifts (i.e., the shifts from the position of the maximum found in water to that found for water containing dissolved substances) has not been confirmed by other workers, nor does any quantitative study exist of the effect of varying amounts of added material.

This work was done with an automatic recording infrared spectrograph, employing two rock salt prisms in a Littrow mounting. Intensity measurements were made with a Brackett-McAlister single-junction vacuum thermocouple feeding into a Barnes-Matossi amplifier. Proper attention was paid to the variations in the intensity of the source and of zero-drift and suitable corrections made for the inherent scattered light in the instrument. The results were calculated in the familiar units of "molar absorption coefficients"; i.e., the absorption per mol or water per square centimeter of light path. In the case of methanol and ethanol solutions, "mass" absorption coefficients were also calculated.

In order to compute the absorption of the water in alcoholic solutions, it was necessary to have accurate values for the absorption of the alcohols themselves. These values were measured for methanol, ethanol, propanol, isopropanol, butanol<sup>1</sup>, and tertiary butanol, in the spectral range from 1600 to 3000  $\text{cm}^{-1}$ . In the calculation of the results, it was necessary to assume that the absorption coefficient of the alcohol remained the same in solution as in the pure state. No attempt was made, however, to correct for the absorption due to the presence of inorganic salts in solution. This is negligible except in the case of the polyatomic ions. The absorption of the latter would be rather difficult to take into account.

The absorption of water at 2130  $\text{cm}^{-1}$  is appreciably modified by the presence of large percentages of methanol and ethanol, but in opposite manners. No technical error is apparent which could make these differences disappear. Errors in cell thickness measurement, density, and composition of the solution were assumed and new calculations carried out. These calculations altered the magnitude of the observed effects and the intensities of absorption without disappearance of the unusual phenomenon. When these alcohols are present in a mol ratio of 3 to 1

of water, the absorption of each component is modified by approximately 25 per cent. The absorption of the water was then assumed to remain constant in the solution, and the absorption of the alcohol computed. These results showed that the various bands of the spectrum of the alcohol did not change together, but in more or less separate manners. It is to be pointed out that all these changes are essentially linear with concentration and that no abrupt changes occur in the spectrum. The presence of methanol and ethanol therefore must result in rather appreciable interaction with the water, producing and decomposing some complex configurations.

The presence of the higher alcohols studied may increase very slightly the intensity of the absorption by the water present, but not more than the experimental errors involved. The presence of acetone, formaldehyde, or urea in solution in water is also apparently without effect on the absorption by the water.

Phenol is considered to be associated in the liquid state through the hydroxyl groups. Because of the large number of bands exhibited in the liquid state, it was decided not to examine the compound in aqueous solution, but to see what effect dispersion in the non-polar solvent, carbon tetrachloride, would have on the spectrum. That is to say, if many of the bands shown in this region were characteristic of hindered rotation of the hydroxyl groups in the associated molecules, as postulated in the case of the lower alcohols, solution in the non-polar solvent should modify the spectrum. The spectrum of the solution is markedly different from that of the liquid state above  $2500\text{ cm}^{-1}$ , but essentially the same between  $1700$  and  $2300\text{ cm}^{-1}$ .

Solutions of the alkali halides were examined in concentrations 1, 2, and 4 molar. Considering the spectra of the alkali chloride solutions, it is shown that the frequency of the maximum of the water absorption is shifted progressively to lower values with increasing concentration and ionic diameter. The magnitude of this decrease in frequency is about  $40\text{ cm}^{-1}$  in the case of the 4 molar solutions of the three largest ions, K, Cs, and NH<sub>4</sub>. In the halide solutions the maximum is decreased in the order Cl, Br, I. Sodium iodide in four molar concentration decreases the frequency about  $70\text{ cm}^{-1}$ ; sodium bromide about  $50\text{ cm}^{-1}$ . Fluoride solutions are unique in that in these cases alone is the frequency of the maximum increased, and in amount approximately the same as the decrease of the chloride solutions.

Sodium, magnesium, and ammonium sulfate solutions were examined and no effect was observed which could be ascribed to the presence of the sulfate ions. Ammonium nitrate solutions were examined up to ten molar in concentration. The shifts produced by the presence of this salt were approximately linear with concentration up to the highest value studied. Because the absorption due to the separate ions or the salt itself



could not be determined easily, no definite statement can be made concerning these solutions. It is of import, however, to note that no further shift was produced by the addition of lithium bromide above four molar concentration.

The non ionizing salt cadmium iodide was studied in one and two molar solutions. The frequency of the maximum was decreased slightly, as well as the intensity.

Magnesium sulfate solutions exhibited a peculiar broadening of the band on the high frequency side, so magnesium chloride solutions were studied. These showed that a high frequency component was appearing at about  $2300\text{ cm}^{-1}$ , roughly proportional in intensity to the magnesium ion concentration. Calcium chloride solutions did not show this effect, or any other, for that matter, in this region in four molar concentration. Beryllium sulfate solutions, on the other hand, were the most opaque solutions examined. A 25 per cent solution, only 10  $\mu$  thick, absorbed essentially all the radiation in this region. A 10 per cent solution showed the water maximum at approximately its normal frequency and intensity, but in addition an extraordinarily strong band whose center of gravity cannot be located at present but which lies above  $2800\text{ cm}^{-1}$ .

One-half molar solutions of sodium and potassium ferri- and ferricyanides were studied as examples of complex ions. A sharp, intense band was observed superimposed on the water band. This is probably due to the valence vibration of the cyanide group in the complex ion. The absorption of the ferrocyanide peak is at a lower frequency than that of the ferricyanide. Intensity comparisons are of more interest. The absorption per CN group is about twice as great in the ferrocyanide solution as in a two molar solution of potassium cyanide. The absorption of ferricyanide, on the other hand, is about four times as great as that of ferrocyanide, a very unusual result for such structurally similar compounds.

It has been considered by other workers that the effect of the addition of salts into solution was similar to that of an increase in temperature (according to the Raman work of Kujumzelis, no correlation exists). It one compares the spectral changes observed here with the effects of increasing temperature observed by Fox and Martin, some interesting speculations may be made. However, it is believed that any correlation of the effects of the addition of ions to a solution with that of temperature change is only a rough first approximation.

The order of decreasing "effective pressures" for the compounds studied here, as given by Gibson, is roughly the same as the order in which the compounds produce shifts of this absorption maximum of water towards that of the vapor phase.

The calculations of Rice on the heats and entropies of solution of the ions showed decreasing values with increasing atomic radii in the alkali

and halide ion series. Rice interpreted these results as meaning that the fluoride ion restricts the motion of the water molecule much more than does the potassium ion. This is, of course, in direct accord with the spectroscopic results.

From a consideration of the viscosities of the solutions studied, it may be seen that, in general, those salts which produce shifts of the absorption maximum of water to lower frequencies have lower viscosities than the other salt solutions. The position of the maximum is only very slightly changed, if at all, in the more viscous solutions. This simple correlation does not hold precisely, since the spectral changes in this region are undoubtedly measures of only one of the processes which must be occurring in these solutions.

In general, the results of this study of the effect of added substances on the infrared absorption may be interpreted as evidence for the loosening of the water structure toward that of the vapor phase. An alternative interpretation would be that we have simply observed a weakening of the force constants of the water-water structure, while new types of water-ion groups may be formed leading to absorption in an entirely different region of the spectrum. The energies of these new groups would have to be markedly different since we have observed no evidence for any new bands in this region of the spectrum which would be indicative of the new structure (except for the alkaline-earth ions,  $Mg^{++}$  and  $Be^{++}$ ). The frequencies arising from ion-dipole interaction might be expected to be rather low, as the fragmentary evidence of Cartwright has shown.

The band studied results from a combination of the internal motion and the hindered rotation of the water molecules. The former depends on the water molecule itself, and the latter occurs when the surrounding molecules act in a directed manner on the water; i.e., when the environment of a water molecule is such as to produce an orientation effect on the molecule, these forces tend to stop the rotation.

In non-polar solvents, free rotation of the water molecule occurs since the forces due to the environment are too small to have appreciable effect. In pure water, the molecules stop each other, by the structure picture, especially at low temperatures. The alcohols produce an environment which orients the water molecules by hydrogen bridges. Sometimes these forces may be greater than in water itself, as in methanol, for example. Ions will also attract the positive or negative ends of the water molecules and decrease rotation. Small anions do this most strongly; cations have a less effect. Only large and relatively inert anions will tend to reduce the frequency of rotation.

The conclusions arrived at on the basis of this work may be briefly summarized as follows. In the alcoholic solutions, pronounced effect is observed only in the case of the two simplest aliphatic alcohols. The

hydroxyl groups of methanol and ethanol are so similar to the hydroxyl groups of the water molecules that interaction occurs with the formation of slightly different configurations. The hydrocarbon interaction of the higher alcohols is apparently so strong that no effect is observed on the water aggregates. Since no broadening of the water band is observed, it is concluded that the inorganic ions do not act separately, but exert a combined influence on the water molecules. In the alkali halide series, the water aggregates are dispersed toward the vapor phase with increasing ionic diameter, except in the case of the fluorides. In the latter, there is evidence for a tightening of the water structure. Even though absorption bands characteristic of ion-water interaction might not be expected at these high frequencies, it is noteworthy that no evidence is observed for the presence of these bands except in solutions of two alkaline earth salts. The divalent ions of beryllium and magnesium produce strong and weak bands, respectively, in addition to the water band, at appreciably higher frequencies. This may be due to hydration of the ions.

In no case was an appreciable decrease in the intensity of the  $2130\text{ cm}^{-1}$  band observed. In general, there was a slight increase, if any effect at all was observed. Only the non-ionizing salt, cadmium iodide, produces a diminution in intensity of the band even at high concentrations. Although this decrease is rather small (ca 20 per cent) it is probably real. Inasmuch as little change in intensity (absorption per mol of water in the light path) or general shape of the band is observed with increasing concentration of added salts, it is concluded that the long-range forces of the ions act throughout the water structure in a manner essentially proportional to their concentration. It is of interest to note that, while the maximum of the band arising from  $\nu_2$  alone was not observed, there is no evidence in the curves that any appreciable change in frequency occurs in this band. This is based on the general position of the high frequency side of the band. It could, of course, be markedly changed on the low frequency side by means of a broadening of the band, without any evidence available from this work; however, this is considered rather unlikely.



## BIOLOGIES OF SOME IXODOIDEA

by CARROLL NEWTON SMITH\*

The American dog tick is a species of considerable economic importance because of its role as a vector of Rocky Mountain spotted fever in the east, its annoyance to persons in resort areas, and the harmful effects of heavy infestations on dogs. Although several papers dealing with this species have appeared, many points about its biology were obscure, and the present study was directed toward their elucidation. There was available adequate information as to the developmental potentialities of the various stages, but not the volume of field data necessary to determine which potentialities were normally realized.

Aside from the original description, no papers concerning *Ixodes muris* have appeared. In the original description the hosts reported are jumping mice, meadow mice, white footed mice, Norway rats, short tailed shrews, and muskrats. The localities of collection reported are Martha's Vineyard, Nantucket, and Cape Cod, Massachusetts.

The literature regarding *Ixodes dentatus* has been entirely taxonomic.

The literature on *Ornithodoros coriaceus* includes a few records on its life history, but additional observations appeared desirable.

The following summary includes only the observations of the author.

In the study of the seasonal cycles two main types of data were collected. Ticks were reared experimentally and all stages kept under natural conditions to determine just how long each of the non parasitic periods lasted when started in any month of the year. Records on the seasonal abundance were made by dragging for adults and trapping meadow mice for larvae and nymphs. A comparison of the two types of data reveals the normal cycle in the presence of an abundance of hosts.

*The biology of Dermacentor variabilis (Say).—*Larvae were very abundant and active early in the spring, as considerable numbers hibernated in the unfed state. Since there could be no addition to their numbers until eggs began to hatch, their abundance constantly declined as more and more became engorged or died, until by July or August practically all were fed or killed. Then hatching began and the abundance increased rapidly as eggs from the females engorged in April, May, and June all began to hatch at once. Females fed after mid-July produced eggs which did not hatch until the end of August and later, when larval activity was declining, and the larvae from these eggs hibernated, producing the spring activity. Very few females dropped so late that their eggs were exposed to the winter, and in most cases these were killed. The potential larval longevity, well over a year, was seldom actually realized.

\* A.B. 1932, A.M. 1934, The George Washington University; Ph.D. conferred February 22, 1941.



and there was no aestivation, practically all larvae engorging soon after hatching or soon after becoming active in the spring.

Nymphal abundance in the early spring varied somewhat with the weather conditions of the previous fall. When the fall was mild many engorged larvae from the summer peak molted and produced hibernating flat nymphs, but when cold weather began early in the fall more engorged larvae hibernated, not molting until the following year. Whether many or few flat nymphs were produced before the onset of winter, all those that were present became active early in the spring. Late in April or early in May the hibernated, engorged larvae began to molt, and toward the end of May the larvae which engorged during the spring peak began to molt, producing the peak nymphal abundance in June or July. From this peak the abundance declined until activity ceased, with a small rise in September in some years caused by molting of larvae from the summer peak, although most of these larvae molted so late that they produced hibernating flat nymphs or hibernated as engorged larvae.

Adult activity began in April, and abundance rose steadily to a peak in May or June. After July abundance declined rapidly until by the end of August few adults were found. There was no molting before July from nymphs engorged the same season, and by this time the abundance of adults had already begun to decline. Nymphs engorging in September sometimes passed the winter in the engorged condition and molted sufficiently early the following year to assist in forming the season's peak of adults. As few nymphs engorged in September, it seems probable that the greatest number of nymphs molted to adults the same summer they engorged, but that only a small minority of these adults became active that summer, most of them remaining inactive until the next spring.

From the adult females engorging in any one summer (e. g. 1938) the second generation of adults are produced as follows: a very few molt from nymphs that same fall, and become active the next spring; a small minority molt from nymphs during the second summer (e. g. 1939) and become active that same summer; the majority molt from nymphs during the second summer, but do not become active until the third summer (e. g. 1940).

A meadow plot 30 by 59 inches set up in a greenhouse-type table and infested with ticks and with meadow mice in wire-enclosed runs gave confirmatory evidence.

Adult ticks were collected by dragging, marked with enamel to show the month and site of capture, and released at the site of capture. Subsequent collections showed some ticks to be active at a single spot from April to August, and .24 per cent of the marked ticks were recovered the following year. Ticks showed a marked tendency to migrate from the center of a field and concentrate along roads and paths. Roads were not a barrier, but an attraction.

Engorged females made no attempt to select oviposition places near larval hosts.

Larvae and nymphs were more active than adults in seeking their hosts, crawling constantly about rather than waiting in a favorable spot.

*The biology of Ixodes muris* Bishopp and Smith.—New hosts here recorded were rabbits, long-tailed shrews, and a dog. By far the most important hosts for all stages were meadow mice, 1,058 specimens having been collected from 2,005 mice; white-footed mice constitute a poor second, with 77 specimens collected from 559 mice. An additional distribution record, from New Hampshire, was obtained.

The smallest number of eggs deposited by a female was 135, the largest number 1,380, and the average of seven females was 656. Oviposition began 6 to 268 days after dropping, and was completed in 7 to 25 days, with as many as 165 eggs laid in a single day. Females lived for one day to a month after ovipositing. Females which completed feeding between March and mid-August laid eggs the same summer, but those which dropped between mid-August and October did not begin oviposition until the following summer. Eggs were thus rarely if ever subjected to a winter, since those from females which dropped by mid-August hatched the same fall. The incubation period varied from 31 to 77 days. The earliest hatching occurred in July.

Larvae were able to survive the winter without difficulty and engorge the following year. The greatest longevity recorded was 461 days, with the specimens still alive at the time of writing, but in many lots all died after 300 to 400 days. Larvae engorged in 2 to 9 days and the majority dropped on the fourth day. The average dimensions of engorged larvae were 1.33 mm. from the tip of the hypostome to the posterior extremity, .91 mm. across the body at the spiracles and .69 mm. dorso-ventrally at the thickest part. The larval molting period ranged from 26 to 296 days. Within a single lot molting was spread over a period of a fortnight. Lots which completed feeding between April and August molted the same year, but those which dropped in September and October did not molt until the next spring. The first molting occurred early in July.

Nymphs survived the winter satisfactorily and were able to engorge normally when over a year old. In a few lots all died after about a year, but in several lots specimens were alive after more than two years at the time of writing. Engorgement required from 2 to 8 days but the majority of individuals dropped on the third day with an average engorging period of 3.7 days. The average dimensions of engorged nymphs were  $2.42 \times 1.61 \times 1.27$  mm. The nymphal molting period ranged from 25 days to 320 days, varying with the season of dropping. Nymphs producing males molted before those producing females in the same lot, and 59.2 per cent of all nymphs produced males. Molting began in July

for both the nymphs which hibernated in the engorged state and those fed the same spring.

Mating occurred on the ground and was a prerequisite to feeding by the females. The males never fed. The fertilized females engorged in 4 to 8 days, the average period being 5.4 days. The average dimensions of engorged females were  $7.2 \times 5.2 \times 4.3$  mm.

In nature, in the presence of an abundance of hosts, larvae were quite scarce before July, as few flat larvae hibernated. In July hatching began. The new larvae quickly became active and produced heavy infestations on mice. Hatching stopped about mid-September, but larval activity continued until October or November, so that most larvae found hosts and engorged the year they were produced, but the few left unfed survived the winter readily and became active the next spring.

Nymphs were always numerous early in the spring, since large numbers hibernated in the unfed state and molted in September or October but remained inactive until spring. As they became engorged the abundance of active nymphs declined, and after June abundance was not uniform. If the majority of engorged larvae hibernated and molted the following summer a peak occurred in July, but if larvae engorged in July molted soon enough a peak was reached in August.

Adults were about equally abundant from April through September. While some females certainly passed the winter in the unfed state, others probably engorged the same season in which they molted.

*The biology of Ixodes dentatus Marx.*—The average number of eggs laid by a single female was 2,092, the maximum being 3,648 and the minimum 398. As many as 367 eggs were laid in a single day. Females lived only a few days after oviposition was completed. The preoviposition period varied from 7 to 24 days, the oviposition period from 12 to 38 days, and the incubation period from 47 to 66 days. Normally, no eggs were exposed to winter. The earliest hatching began July 28.

Unfed larvae were able to survive for slightly more than a year, hibernating and engorging the following spring. Engorgement required from 4 to 13 days, but the majority dropped on the sixth day with an average period of 6.4 days. The average dimensions of engorged larvae were  $1.33 \times 1.05 \times .70$  mm. There was no tendency to drop at any particular time of day. Molting of larvae ranged from 34 to 315 days. The earliest molting began toward the end of June, from larvae which had fed the previous fall.

The feeding period of nymphs ranged from 4 to 11 days, but the majority dropped on the sixth day with an average period of 5.4 days. The average dimensions of engorged nymphs were  $2.30 \times 1.64 \times 1.11$  mm. Unlike the larvae, nymphs showed a distinct tendency to drop during the daylight hours. The nymphal molting period ranged from 35 to 372 days. The earliest molting began during July, from nymphs fed the



previous fall. Molting continued until October. There was no difference in the molting periods of nymphs producing males and those producing females, but 58.6 per cent of all nymphs produced females.

The unfed males and females were able to survive for as long as two years. Mating took place on the host, after the females had attached. Males were often found mating or crawling about on the host, but never attached to the host and feeding. Females would not complete engorgement unless fertilized. Engorgement of the female requires from 17 to 32 days. The average dimensions of engorged females were 11.1 x 8.7 x 7.6 mm.

Rabbits were practically the sole host of all stages, since 4,079 larvae, 932 nymphs, 240 males, and 422 females were taken from 53 rabbits. A few larvae and a male were found on muskrats, and a single larva on a brown thrasher. Large numbers of meadow mice, white-footed mice, Norway rats, and dogs were examined but not found to serve as hosts.

In nature larvae were abundant in April, May, September, and October but rare in June, July, and August. Since the earliest hatching was in August it was apparent that some larvae became active soon after hatching, while others hibernated and became active the following spring. Many engorged larvae also hibernated.

Nymphs were about equally abundant from April to October, with a slight peak in May. Many flat nymphs certainly hibernated, while others probably engorged soon after molting. Many engorged nymphs also hibernated.

Adults were most abundant in April, May, and June. Probably all adults passed at least one winter in the unfed state before seeking hosts, as no molting occurred before July. No engorged females and no egg masses were exposed to winter.

A nymph parasitized by *Ixodiphagus texanus* How. was taken from a rabbit in August 1938.

A gynandromorphous individual appeared among reared adults, showing a female scutum and one porose area but other characters, including the ventral plates, as in the male.

A female unable to use Gene's organ because of a large piece of rabbit skin hardened about the hypostome laid eggs which hatched.

*The life history of Ornithodoros coriaceus Koch.*—Incubation required 10 to 15 days at summer temperatures. Unfed larvae were short-lived, none surviving more than five months. Larval engorgement required 5 to 18 days, with an average period of 9.2 days. The average dimensions of engorged larvae were 4.1 x 2.6 x 1.7 mm. Larval molting required from 4 to 22 days at summer temperatures.

The nymphs fed and molted several times, the number of nymphal stages varying from 3 to 7.

The first stage nymphs did not feed, but molted to the second stage



11 to 122 days after molting from larvae. The time required for this molting depended to some extent on the temperature, although molting in a single lot spread over 102 days.

The second stage nymphs invariably fed once or twice before molting, and became engorged in 8 to 155 minutes. Molting to third stage nymphs required from 15 to 122 days. The total duration of the second stage in ticks which molted ranged from 59 to 305 days, while unfed ticks lived for 314 days.

Third stage nymphs fed one to three times before molting, and became engorged in 5 to 62 minutes. The average dimensions when engorged were  $7.8 \times 4.8 \times 3.9$  mm. Molting required from 16 to 270 days, 81 per cent molting to fourth stage nymphs, 15 per cent to males, and 4 per cent to females. The duration of the stage in ticks which molted ranged from 60 to 474 days, while unfed ticks lived for more than four years.

The behavior of fourth, fifth, and sixth stage nymphs was similar to that recorded for those in the third stage, although the exact length of the periods differed slightly. Some individuals fed as often as five times before molting, and some lived for four years without molting. The proportion of nymphs molting to females increased in each stage.

Both males and females fed one or more times and became engorged in 5 to 51 minutes. Mating took place off the host after one or more meals. Oviposition followed mating by a period of from two weeks to seven months. Females sometimes fed and oviposited repeatedly, laying as many as 527 eggs in a single lot. The longevity of fed adults ranged from one to four years, but unfed individuals lived for less than a year.

## A GENERIC REVISION OF THE NEARCTIC CICADELLIDAE (HOMOPTERA)

by PAUL WILSON OMAN\*

An attempt is made to develop, on a sound morphological basis, a scheme of classification which will adequately express the interrelationship of characteristics found in the elements constituting the hemipterous family Cicadellidae, and at the same time serve as a basis for the ready recognition of the genera and higher categories and the accurate placement of species in these groups.

The higher groups—that is, genera, tribes, and subfamilies—are defined almost wholly on the basis of characters determined by a study of the comparative external morphology, although an attempt has been made to associate species exhibiting a certain degree of homogeneity with respect to other characters such as color, biology, and distribution. Characters deemed significant in the definition of one genus are not necessarily of importance in the characterization of some other genus. Chief reliance on the definition of genera and higher categories has been placed on the shape of the cephalic and thoracic sclerites, supplemented by the characters of the two pairs of wings. Keys are presented to show the position of the family Cicadellidae in the suborder Homoptera and to differentiate all superspecific categories within the family. Diagnoses of the various categories are also given and the placement of all the Nearctic species is indicated to aid in the interpretation of the genera recognized. Brief discussions of the distribution, host relationships, economic importance, nomenclatorial problems, and characters of importance in classification are included. The species of leafhoppers known to occur in the Nearctic region, numbering more than 2,000, are grouped in 159 genera and subgenera representing 15 subfamilies and 38 tribes. A brief résumé of these major divisions follows.

The subfamily Amblycephalinae, distinguished from the remaining subfamilies by the shape of the clypeus and clypellus in combination with the position of the ocelli, is divided into four tribes, as follows: the Proconini, which includes *Aulacizes*, *Homalodisca*, *Oncometopia*, and *Guerina*; the Amblycephalini, which includes *Ciminius*, *Neokolla*, *Plesiommata*, *Draeculacephala*, *Carneocephala*, *Helochara*, *Hortensia*, *Graphocephala*, *Sibovia*, and *Kolla*; the Errhomenellini, which includes *Errhonus*, *Garsonus*, *Pagaronia*, *Friscanus*, *Thaluna*, and *Lysitridea*; and the Evacanthini, represented in the Nearctic region by a single genus, *Evacanthus*.

The subfamily Xerophloeinae, separated from the Gyponinae because of the completely exposed episternum, is represented in our territory

\* A. B. 1935, A. M. 1935, University of Kansas, Ph. D. conferred June 11, 1941.

by a single genus, *Xerophloea*. The subfamily Gyponinae, characterized by the broad, flat form, the partially or wholly concealed episternum, the position of the ocelli and the shape of the pronotum, is divided into two tribes, the Penthiniini containing only *Penthimia*, and the Gyponini which includes *Dragonana*, *Gyponana*, *Prairiana*, *Gypsona*, and *Ponana*.

The subfamily Bythoscopininae is restricted to the genus *Bythoscopus* and close allies on the basis of the cephalic, thoracic, and venational characters. In the Nearctic region this subfamily is represented by but two genera, *Stragania* and *Pachyopsis*. *Macropsis* and *Oncopsis* are considered to constitute a subfamily (the Macropsinae) distinct from the Bythoscopininae, as do the agallian leafhoppers (subfamily Agalliinae), represented in our territory by four genera, *Agalliopsis*, *Agallia*, *Aceratagallia*, and *Ceratagallia*.

The subfamily Megophthalmininae, which includes the forms previously included in the genus *Paropulopa*, is represented in the Nearctic region by two genera, both described as new. The subfamily Nioninae contains a single Nearctic genus, *Nionia*. The genus *Idiocerus* is the only Nearctic group belonging to the subfamily Eurymelinae which is made up primarily of Australian forms. The subfamily Koebelinae, easily recognized by the long, slender clypeus and clypellus, the flat head and the ocelli facial in position, contains but a single Nearctic genus, *Koebelia*.

The subfamily Jassinae, heretofore considered by most workers to include the forms here segregated into the subfamilies Neocoelidiinae, Balcluthinae, and Euscelinae, is primarily a tropical group and is so restricted as to contain but two Nearctic genera, *Jassus* and *Tribregmus*.

The subfamily Neocoelidiinae contains *Neocoelidia*, *Coelidiana*, and *Paracoelidia* from the Nearctic region. The subfamily Cicadellinae, previously commonly called either the Eupteryginae or the Typhlocybinae, is divided into four tribes, as follows: the Alebrini, which includes *Alebra* and *Protalebra*; the Dikraneurini, which includes *Alconura*, *Dikraneura*, *Typhlocybella*, *Idonea*, *Dikraneuroidea*, and *Empoasca*; the Jorumini, represented in our territory only by *Joruma*; and the Cicadellini, which includes *Cicadella* (*Eupteryx auct.*), *Typhlocyba*, *Pyrrhoneura*, and *Hymetta*.

The subfamily Balcluthinae, distinguished by the sulcate hind basitarsus, is represented in the Nearctic region by *Balclutha* and *Nesosteles*. The subfamily Euscelinae, which contains approximately half of the Nearctic leafhoppers, is divided into sixteen tribes and eighty-four genera, as follows: Dorycephalini, two genera; Hecalini, five genera; Collocrinini, five genera; Selenocephalini, one genus; Aphrodini, two genera; Xestocephalini, one genus; Scaphoideini, three genera; Scaphytopiini, two genera; Mesamiini, four genera; Phlepsiini, eight genera; Acinopternini,

one genus; Cicadulini, nineteen genera; Deltocephalini, fourteen genera; Stirellini, four genera; Euscelini, eleven genera; and Macrostelini, two genera.



## THE WAR COMES TO ALL: THE STORY OF THE UNITED STATES FOOD ADMINISTRATION AS A PROPAGANDA AGENCY

by MAXCY ROBSON DICKSON •

Among the slogans of the First World War none was more effectively impressed upon the minds of the whole American people than "Food will win the war—don't waste it!" With this injunction the Food Administration took its program to every man, woman, and child in the country, pointing out to each how he might contribute directly and materially to an Allied victory over the Central Powers. To secure their wholehearted cooperation it was necessary to teach them the truth that in modern war food is as vital as guns and munitions, trained fighting men, and skilled military leadership. As an article in the *New York World-Telegram* observed, food is "the necessity of all necessities, the prime essential of war, greater in importance than bombs and shrapnel. It is as sharp as steel, the driest—the deadliest of all weapons." Both governmental compulsion and voluntary cooperation were necessary to insure an adequate food supply for the armed forces and civilian populations of the Associated Powers as well as to meet our own needs. It was not, however, until four months after the entry of the United States into the war that Congress passed the Food Control Act, which on August 10, 1917 received the signature of President Wilson. The delay was credited by the *New York World* to the opposition behind the scenes of "crooked politics and crooked business, Chicago grain gamblers and pacifists, and pro-German members of Congress." Perhaps the chief obstructionist in Congress was Senator James A. Reed of Missouri who based his objections on personal disapproval of Herbert Hoover, whom President Wilson had already indicated as his choice for Food Administrator, attempting to cast ridicule upon him as "J. Rufus Wallingford" Hoover. Further difficulty had come from those who desired to write national prohibition into the measure.

The Act declared that national security and defense made it necessary for the Government to establish control over the supply, distribution, and movement of food, feeds, fuel, fertilizer and fertilizer ingredients, over tools, utensils and implements, and equipment required for the actual production of foods, feeds, and fuels. The destruction, hoarding, monopolizing, or wasting of any necessities and profiteering in their marketing were made unlawful. The President was authorized to license the importation, manufacture, storage, mining, or distribution of any necessities. Retailers whose business was less than one hundred

• A.B. 1925, Wofford College; A.M. 1931, University of North Carolina; Ph.D. conferred June 3, 1942.

thousand dollars per year and the less vital agricultural commodities were exempted from the application of the Act. These exemptions complicated the work of the Food Administration officials from the outset, since the problem of prices and profits was largely centered in the retail trade. The law further provided that no foods, fruits, food materials, or feeds were to be used in the production of distilled spirits for beverage purposes; and no distilled spirits were to be imported into the United States. This came about as a result of an agreement with the distillers who stated that they had at least a two-year supply on hand. The brewing of beer, however, was not prohibited for to have done so, according to the President, would have tended to put the country on a whiskey basis.

With the measure at last a law, the new Government agency, known as the Food Administration, set forth on its important and well publicized career. Beginning with the small group that had its offices in a few rooms in the Willard Hotel, it soon grew to an organization of nineteen hundred people in its own buildings at Eighteenth and D Streets in Washington, besides some sixty thousand workers scattered throughout the country. All but a small minority were unpaid volunteers. At the beginning Mr. Hoover announced that he would "cut off every official and every theorist,"—above all there must be "no professors on the job,"—and would turn to the commercial interests—the only people who knew anything practical about food. This statement, born perhaps out of his own conception of himself as a practical business man and a desire to play to supposed prejudices of the mass of people proved in the end to be based upon an untenable theory. Besides thousands of home economics teachers who carried on the "practical" problems of food, many outstanding school men were called to Washington to conduct the business of food administration. Among these were Ray Lyman Wilbur, the President of Stanford University; Alonzo E. Taylor, Professor of Physiological Chemistry in the University of Pennsylvania; Olin Templin, head of the Department of Philosophy and Dean of the College of Liberal Arts and Sciences in the University of Kansas; Charles R. Van Hise, distinguished geologist and President of the University of Wisconsin; and Frederick C. Woodward, Professor of Law in the University of Chicago.

The Food Administration was divided into forty-eight divisions; it is with one of these—the Educational Division, that we are primarily concerned, for it had the chief responsibility for arousing a cooperative attitude among the American people without which the whole program would have failed. The chief of this Division, Ben S. Allen, was a Stanford graduate, a newspaper man, and a close associate of Hoover's. To him was given the task of making the country "stomach conscious"—the task of changing the food habits of the people. Hoover himself

wrote the first propaganda message—"Go back to the simple life, be contented with simple food, simple pleasures, simple clothes. Work hard, pray hard, play hard. Work, eat, recreate and sleep. Do it all courageously. We have a victory to win."

The Educational Division, which had the responsibility of selling the food conservation program to the country, was organized like a large newspaper office. It was not only designed to reach the general public through the daily press but it was formed also to deal with every group and special interest. Besides the work of supplying the daily press regularly with news material concerning food, there was a Farm Journals Section concerned solely with special articles for the farm interests. This section was kept busy throughout the war explaining to irate editors and farmers what the Food Administration could do and could not do under the legislation adopted by Congress concerning prices and why it had adopted certain policies. There were also a Magazine and Feature Section to supply the women's magazines and the women's pages of the daily press with material intended to make the kitchen the first line of defense, a Vernacular Press Section to reach the non-English groups in the country, a Negro Press Section, which asked these people to work six days a week and to give up Saturday frolicking, and which requested Southern housewives to abolish the wasteful "pan-toting" system traditionally practiced by their servants. In addition to these a Trade and Technical Press Section provided material for this special type of periodical, and a Religious Journals Section addressed itself to churches, fraternal orders, and patriotic societies. Other units designed to bring the "gospel of the clean plate" to every corner of the land included the Speakers Bureau, the Retail Store Section, the Schools and Colleges Division, the Advertising Section, the Library and Exhibits Section, the Press Clipping Section, Illustrations and Plate Section, and the section to handle the motion picture theatres. Besides the specialized work of these units there were special problems and assignments to be handled by all of the organizations that were set up. Some of these included pledge card campaigns, campaigns for wheatless days and meatless days, campaigns to combat German propaganda, campaigns concerning the problems of garbage, ice, fish, perishables, sugar, prices, the fifty-fifty rule (the use of fifty per cent of other flours with wheat flour), penalties for non-compliance, and the very special problem of understanding our Allies in Europe.

Through all of these media the Food Administration sought constantly to keep before the American public the great need for conservation as a means of winning the war. A Statistical Division under the direction of Raymond Pearl, the distinguished biologist and statistician of Johns Hopkins University, prepared a barrage of facts and figures to show how expanded production could not by itself meet the situation.



Our armies and Allies could be fed only by "conservation, concentration, and consecration."

There were many striking incidents and sidelights that underlined the efforts to sell the message of food conservation to the American people. From the Speakers Bureau were sent experienced lecturers who sometimes stirred crowds to such a pitch that in rural communities farmers arose to say that henceforth their "hogs belonged to Hoover," and after some meetings suspected pro-Germans were taken out and talked to in the language of tar pots, feathers, and hempen ropes. A special group of speakers toured the Midwest during the great blizzard of 1917-18. Difficulties encountered in transportation and in holding meetings, which they reported in graphic language to their superiors, make their work one of the heroic pages in the history of American propaganda efforts. From the Retail Stores Section came reports of armies of clerks going out at the end of a daylight-saving day to cultivate gardens and to assist the farmers with the harvesting of their crops. The spirit of '18, it was repeatedly asserted, must keep the home garden going! Incidentally, it might be added here that many farmers looked with apprehension at this on-coming horde of enthusiastic, inexperienced workers. From the retail stores soon came plaintive cries for regulation in order to insure fair play. Patriotic merchants, it was reported, were being penalized for their patriotism through the failure to deal effectively with those who shirked their responsibilities. One of the most effective fields of operation was in the schools and colleges. Their home economics divisions became vital parts of the machinery to disseminate conservation lessons. In this crisis, it was often asserted, we must even put aside the three "R's", if necessary, in order that our educational system may aid without stint in the winning of the war. Advertising, which was rapidly becoming a leading national industry, was also an effective medium for spreading the conservation program. From the advertising pages of newspapers and magazines, from the painted sign-boards on the highways, and from gleaming electric signs in the larger cities—"so many visions bright", in the words of an enthusiastic participant—the slogan, "Food will win the war—don't waste it!" came constantly before the eyes of the American people. Save wheat, save meat, save sugar, they were urged. In the movies, food conservation slides appeared between the feature picture and other items on the program. In addition, there were trailers featuring such well-known stars as Douglas Fairbanks, Mary Pickford, Billie Burke, and Marguerite Clark, who appeared in scenes illustrating methods of conservation and explaining the need for it. The legitimate stage and the Hollywood and New York producers indicated their recognition that even the smallest waste was intolerable by agreeing to abolish the use of real food in scenes during the war. For a time at least, Americans were required to forsake the movie drama



of the custard pie. To popularize certain commodities which were desired as substitutes, great stress was laid on "name" foods such as Indian maize, Irish potatoes, Bohemian rye bread, "Dutch" sauerkraut (it was explained that sauerkraut was of Dutch origin, not German), French pot-eu-feu, Chinese chop suey, and Hawaiian poi.

There were countless problems and personal reactions to constantly beset the people who were trying to convince a nation to save food. For example, prohibitionists declared that as long as the British workers were drinking beer and the French were drinking wine they would have no part of wheat conservation. Traveling men bitterly protested that hotels and restaurants were eagerly taking advantage of the conservation requests by decreasing portions and substituting cheaper foods and were at the same time boosting their prices.

As a phase of conservation, the Food Administration made special drives for the consumption of substitutes. Cornbread and potatoes instead of wheat, fish instead of meat. And here it should be noted that just as the farmers were encouraged to turn back marginal lands into cultivation and to put their plows into the plains, the states and the Federal Government were asked to repeal all laws concerning fish and game in order that there might be the greatest supply possible. The nation was told to "eat fish—a good war dish." Our armed forces, the forces of the Allies, and the civilian population had to have food, that is, wheat, meat, fats, and sugar. Time was the very essence of victory. As one speaker put it, "every American ship that sailed away to Europe postponed hell."

And now what were the results of all of this effort and activity? At the end Hoover could report that for the period of 1916-18 we had shipped over ten billion pounds of meats and fats, dairy products and vegetable oils, and some one billion two hundred and fifty million bushels of cereals and cereal products, worth three billion six hundred and seventy million dollars, all of which was financed by the United States Treasury. Another statistical report showed that for 1915 and 1916 we exported nearly seven million tons of food commodities; for 1917-18 thirty-one million tons, an increase of 345 per cent. And all of this during a period in which, because of severe and unfavorable weather conditions, there had even been an actual decrease in some crops. Not only had this food fed our armies, bolstered the Allies, and made victory possible but it was also the chief factor in restoring international morale after the war. It saved Europe from much anarchy and chaos.

The experience also changed the habits of America. It had been the purpose of the Food Administration to make food saving, which was at first a fad then a patriotic service, a national habit. As a part of this program it was necessary to change the former tastes and prejudices of the people. The educational program familiarized them with such

things as calories and vitamins. There was much more knowledge now concerning the preservation of food on farms and in small communities. The food value of salads and particularly of such commodities as lettuce and nuts was popularized to a great degree. Another, and even more subtle by-product of the food conservation program was the opportunity given to women, as in no other war agency, to arise to positions of executive importance. The many campaigns for conservation made the World War period the hey-day of "Madam Chairman". Not least of its effects were the lessons unintentionally taught by the Food Administration to the writers of commercial advertising.

How had these things been achieved? What factors had made possible the saving of such a tremendous food surplus? We may list three. The educational program of the Food Administration with its constant cry of conservation—its "battle cry of feed 'em"—was undoubtedly of the first importance. Its work was also assisted by two other factors: transportation, which sometimes made it impossible to obtain certain foods, and prices, practically free of control so far as the retailers were concerned, which reached consequently points that made it impossible for people of small means to buy. We cannot say that the Food Administration as an educator of the people was solely responsible for creating the food surpluses required to win the war, but its work was nevertheless vital and outstanding.

This experience recalls our present plight. We are again at war. Again we are faced with the problem of supplying allies with food, munitions, and weapons of war. Again it is necessary for the nation to call on all of its resources—all of its experience. Hoover insisted in World War I that our efforts for conservation be based on voluntary action, that whatever rationing was necessary must come as the result of an educational appeal made in a democratic manner. As it conceived of its role the mistakes of the Food Administration were few and unimportant. In this day of blitzkrieg the need for speedier action will require an approach different from the long-suffering and patience of the Food Administration of a quarter of a century ago, but many of its pleas, slogans, and admonitions will be applicable today, and its entire experience stands as a guide-book of what to do and what not to do for food conservation in war time. The history of its operation as recorded in mountains of records in the National Archives is a part of the story of the nation's mobilization for our first crusade for a stable and civilized world.

## THE THEORY OF THE MOTION AND CAPTURE OF FREE ELECTRONS IN CRYSTAL DIELECTRIC MEDIA

by CHARLES FREDERICK MEYER \*

The solid state of matter conducts electricity in varying degrees depending upon the nature of the substance. We can roughly classify all matter into three groups; conductors, insulators, and semi-conductors. Conductors exhibit comparatively large currents for small electric fields. Insulators show no appreciable conduction for feeble electric fields. Semi-conductors exhibit no conduction at low temperatures and small fields, but conduct fairly large currents at higher temperatures. If an insulator is subjected to a high electric field of the order of  $10^6$  volts/cm. it is found that a small current will flow. This flow of current increases with increasing field and if the field is increased beyond a certain critical value the insulator conducts an appreciable current and does not return to its original condition. This occurrence is called the electric breakdown of the insulator and the critical field is called the breakdown strength of the crystal.

The electric breakdown strength of the alkali halide crystals has been studied in the greatest detail. The breakdown strength of these crystals has been found by various workers to depend experimentally upon the mass of the ions making up the crystal, upon the temperature of the crystal, upon the presence of impurities in the crystal, and upon the orientation of the applied field with respect to the crystallographic axes of the crystal. The object of any theoretical work on this subject is to derive numerical values for the electric breakdown strength of the crystal in terms of the fundamental characteristics of the atoms or molecules making up the crystal and such external effects as the temperature of the crystal.

Modern theories of the electrical breakdown strength of the alkali halide crystals are based primarily on the electron impact theory. According to this viewpoint an electron free to move in the lattice is continually accelerated by an applied electric field if the energy gained from the field is greater than that lost to the atoms of the lattice by inelastic impacts. The accelerated electron will then gain energy sufficient to ionize the negative ions of the lattice by impact and thus produce secondary electrons. These secondary electrons can then be accelerated by the field to produce further electrons which will eventually lead to an "avalanche" of electrons through the crystal. This basic idea has been developed further from three distinct points of view by H. Fröhlich, R. J. Seeger and E. Teller, and F. Seitz. In all of these the electron is assumed to lose energy to the lattice ions by exciting elastic vibrations in the lattice as it passes the ions. The method of calculating the energy loss of an electron

\* B.S. 1935, The Pennsylvania State College; A.M. 1937, The George Washington University; Ph.D. conferred June 3, 1942.



per unit path length is essentially the same for all workers. The difference between the theories lies in the criterion used to determine the value of the breakdown field strength. H. Fröhlich assumed that the energy gain from the applied field equals the energy loss to the lattice ions for energies of the electron very close to that necessary to ionize negative ions of the lattice. On this basis he has calculated the values of the breakdown strength for all of the alkali halides and has obtained very good agreement with experiment for room temperature. On the other hand the derived temperature dependence does not agree well with the experimental dependence. R. J. Seeger and E. Teller assume that the energy gain from the applied field must be equal to the maximum energy loss to the lattice ions. This maximum occurs for very slow electrons. On the basis of this they have calculated the values of the breakdown field and obtain good agreement with experimental data. They have not calculated the temperature dependence of the breakdown field because the method of approximation used for slow electrons does not justify carrying these calculations that far. F. Seitz assumes that the applied field must be strong enough so that during the time an electron travels the length of the crystal it can produce sufficient secondary electrons to give a current approximately equal to that observed experimentally just before breakdown. This time will depend upon the field strength and the mobility of the electrons which in turn will depend upon the energy loss to the lattice ions. No numerical values of the breakdown field have been calculated by this method up to the present time.

The question of whether slow or fast electrons are the most important in determining the breakdown field cannot be answered by comparing the experimental values with the calculated results of Fröhlich, and Seeger and Teller, since the approximations used in both of these are not accurate enough to justify any conclusions. On the other hand both of these methods have neglected the fact that electrons liberated by impact might be trapped by some mechanism in the crystal. This trapping might change the values of the breakdown field and might conceivably be quite different for slow or fast electrons. The chief purpose of this paper is to investigate the trapping of electrons by imperfections in the crystal and determine the effect on the electric breakdown strength.

The experimental evidence for the trapping of electrons in alkali halide crystals comes chiefly from the facts of photo-conductivity and the optical absorption spectra of the colored varieties of these crystals. The colored varieties of the alkali halides exhibit an absorption band at a much lower energy than normal crystals indicating that electronic transitions from much higher levels than ordinary to the conduction levels are taking place. These higher levels are ascribed to discrete levels in some sort of trapping center in the lattice. The study of the photoconductive properties of these alkali halides indicates that the flow of current occurs in



such a way that the electrons released by light only travel a certain distance in any given field. The only explanation is that the released electrons are trapped again by trapping centers in the crystal.

Two possible mechanisms that can be used to explain these trapping effects have been proposed up to the present time. The first is that there exist in the crystal numerous vacant lattice sites due to the absence of either positive or negative ions. The vacant negative ion sites act like centers of positive potential and would thus attract negative electrons. These vacancies can be shown to possess discrete energy levels much like the levels in the hydrogen atom. An electron could be trapped by making a transition from the conduction levels of the crystal to one of these discrete levels. The second method of trapping is the so-called "dynamic" method. As an electron passes through a crystal it distorts the lattice in its neighborhood. Ordinarily this distortion does not affect the motion to any great extent, but if the electron is moving slowly it is possible that the electron distorts the lattice in such a way as to produce a potential "well" or hole about the electron. In this case the electron would have trapped itself merely by its own interaction with the lattice ions. The vacant ion site model has been used in attempts to explain the facts of photoconductivity and optical absorption whereas there is no known experimental evidence that supports conclusively the dynamic trapping method.

To study the effect of trapping in any physical process it is usually necessary to have some knowledge of the capture cross-sectional area of the trapping center. To evaluate this quantity the vacant negative ion site model was used since it has been successfully used for photoconductivity and also because simple approximations can be made to the potential of the center. In this paper a simple inverse square law of force similar to that of a hydrogen nucleus imbedded in a dielectric medium was assumed for the force field of the center. The electrons were assumed to be free whereas in actuality they move in the periodic potential field of the lattice.

The quantum mechanical method of calculating cross-sectional areas was not used since it involves the concept of definite orbits for the electron in the capture center. It was shown that the losses of energy by interaction of the electron with the lattice vibrations were as great as the energy differences between the levels. Thus the entire picture of definite energy levels collapses and no available method is applicable to this problem. Instead a strictly classical method was used to calculate the capture cross section. Considering the capture center as an attractive center and the applied field as a repulsive force, the velocity of escape of the electron at each distance from the center can then be calculated. These distances will then be the capture cross-sectional radius for the corresponding velocities. Due to the interaction of the electron with

the lattice ions, there will be a "frictional" force also on the electron which will complicate the equations of motion.

It was found possible to evaluate only the cross-sectional radius, for all velocities, for the special case of the one-dimensional motion of the electron in the lattice of NaCl. This was evaluated by a numerical method for all possible directions of the applied field and electron velocity. It was also possible to evaluate the cross-sectional radius for the two-dimensional motion of the electron for the particular case of zero velocity. This is of value in determining how many electrons released by impact will be captured before they are accelerated to a higher velocity.

Using the values of the capture cross-sectional radius calculated above, it was found possible to evaluate the probability that an electron released by impact with zero velocity will be captured before it attains an energy from the applied field sufficient to ionize the negative ions of the lattice and thus produce further electrons. This was done by calculating the number of electrons remaining from an original number  $n$  after they have been accelerated to any particular velocity. If more than one half of  $n$  remain when further ionization occurs there will be a continual increase in the number of electrons and breakdown will probably occur. This loss of electrons obviously will depend upon the concentration of capture centers. It was found that above a concentration of about  $10^{18}$  capture centers per  $\text{cm}^3$  there was a sharp increase in the number of electrons captured to more than one half of  $n$ , when the applied field was slightly greater than that calculated by Seeger and Teller.

From these calculations the author concludes that the electric breakdown strength should be strongly affected by the concentration of capture centers above a concentration of about  $10^{18}$  per  $\text{cm}^3$ . There does not seem to be any experimental data available on this particular item since most normal crystals have a lower concentration of capture centers. It is predicted that if artificial crystals of known concentration of capture centers are prepared a dependence of the breakdown field strength upon concentration will be found in the neighborhood of  $10^{18}$  capture centers per  $\text{cm}^3$  for NaCl.

# AN HISTOLOGICAL AND FUNCTIONAL STUDY OF STRIATED MUSCLE IN VITAMIN E DEFICIENT RATS

by IRA ROCKWOOD TELFORD\*

## INTRODUCTION

Vitamin E has been designated as the "antisterility" vitamin. This term was applied to the vitamin by early workers because of the inability of the animals suffering from avitaminosis E to sire or give birth to living young. Such an important observation caused investigators for several years to elucidate this peculiar property of the vitamin almost to the exclusion of the study of its other vital properties.

It was a number of years after the discovery of vitamin E that a paralysis was noted in the suckling young of partially E deficient rats. Later a somewhat similar muscular paralysis was detected in old chronic E deficient rats.<sup>1</sup> It is with these two latter phenomena, namely, the muscular changes in the early and late paralysis of vitamin E deficient rats that this thesis deals. An effort has been made to study and analyze these changes so as to more fully investigate the role vitamin E plays in maintaining the integrity of the striated musculature of the rat.

A survey of the literature on the effect of avitaminosis E on the striated muscles revealed that an extensive and detailed histological and functional investigation of these muscles was indicated. A study of the effect of vitamin E deficiency on striated musculature was undertaken in rats in two age groups as follows:

- (1) The suckling young of vitamin E-low mothers
- (2) The chronically deprived vitamin E low rats of advanced age

Observation of both groups were to be comparable so that parallels could be drawn from the studies. The scope of the investigation of these widely different groups was divided into three phases of investigation, namely:

- (1) A detailed histological analysis of the typical changes found in the skeletal muscles
- (2) A survey of the musculature of the rat to determine the extent and the degree of muscle damage wrought by nutritional muscular dystrophy
- (3) A study of functional behavior of the two age groups

## EXPERIMENTAL STUDIES ON THE SUCKLING YOUNG OF VITAMIN E DEFICIENT RATS

A total of 269 suckling rats was used in this study. All were born of E deficient mothers of proved sterility which had received, on the day of the second positive breeding, either one gram of a standardized wheat

\* A.B. 1931; A.M. 1933. University of Utah; Ph.D. conferred June 2, 1942.



germ oil or six milligrams of alpha tocopherol, a quantity little more than sufficient to insure a single normal gestation. Each litter was reduced to six young and the litter was then divided into experimental and control groups. The 130 experimental E low young were kept with their mothers who were held on an E-free diet. The 139 control littermates were treated by two methods, both with equal success. In one control group, 0.15 cc. wheat germ oil or 1 mg. alpha tocopherol was administered to each animal six times weekly by dropper or stomach tube after day five or day ten until weaning. The second control group was placed with foster E low mothers. These mothers were given a dose of two grams wheat germ oil or six to ten milligrams alpha tocopherol immediately following parturition. Each litter was then divided into half controls and half experimental animals, giving each experimental suckling rat a littermate control.

The appearance of the skeletal muscles of the paralyzed young rats varied directly according to the severity and the length of duration of the malady. Grossly the muscles were yellowish gray in color, streaked and pale. In severely affected animals this streaked yellowish appearance was common to practically all of the striated musculature. Reduction in size of the muscles was also noted in severely paralyzed animals.

Degeneration was demonstrable in the skeletal muscles of all paralyzed suckling young E deficient rats. The progress of the malady may be divided into two phases:

- (1) A stage of degeneration

- (2) A stage of regeneration

The degenerative phase manifested itself in two pathological processes:

- (1) A hyaline or Zenker degeneration of the fibers themselves

- (2) The infiltration of white blood cells and connective tissue elements with reactive multiplication of muscle nuclei

The first stage of degeneration could often be demonstrated histologically before the animal showed any obvious signs of paralysis. The lesions were confined to separate or small groups of fibers, healthy normal muscle tissue being interspersed. The lesion manifested itself as a waxy, hyaline or Zenker degeneration of the individual muscle fibers. In the necrosis of the fiber, the contractile substance became coagulated and broke up into swollen homogeneous hyaline segments. These masses may attain a diameter double that of the normal fiber. The muscle nuclei also underwent change. They were crowded against the sarcolemma of the swollen fiber segments and were pyknotic.

As the degeneration progressed an increasing number of the muscle fibers were affected. The rapid loss of the cross and longitudinal striations was striking. The fibers were non-continuous, segmented, amorphous masses. The cytoplasm of the affected fibers stained darker with



eosin. Calcification of isolated muscle fibers was noted in some animals. A few slides showed extensive areas of calcification. The beginning invasion phagocytic cells was then noticeable. These histological changes were found in animals showing marked locomotive impairment.

When clinical signs of definite paralysis occurred, such as dragging of the hind extremities, the second stage could be demonstrated histologically. This phase was characterized by the fact that there was an extensive infiltration of leucocytes. Rows of newly formed muscle nuclei indicated the position of preexisting fibers. Some of the original muscle nuclei, displaced and distorted by the swelling of the fiber, were also found crowded on the sarcolemma. Later they underwent complete karyorrhexis and usually disappeared. The collapsed fibers often contained only granular debris and newly formed nuclei with many mitotic figures. The sarcolemmal sheaths persisted however, and did not undergo degeneration.

In the regeneration phase of this dystrophy, characterized clinically by an improvement in locomotion and lessening of the paralysis, there was already histologically a regeneration of part of the muscle fibers. Within an area filled with infiltrated leucocytes, connective tissue elements and debris, newly formed isolated muscle nuclei appeared. These fibers always appeared in connection with the rows of muscle nuclei. Subsequently, myo fibrils developed between the nuclei and regenerated fibers with well defined cross and longitudinal striations. The nuclei stained lightly with hematoxylin and were at first centrally placed in the fiber.

All of the vitamin E deficient suckling young showed some degree of degeneration in fifteen of the seventeen muscles studied. The muscles of the tongue, however, were normal in all except one animal. The masseter was partially protected from the dystrophy as evidenced by the finding of complete normality of this muscle in three of the eight animals. The lesions were of the type already described.

The extensive spread of the degeneration to every large muscle group in the entire skeletal musculature of these E deficient young was very significant. It illustrated the inability of any of these muscles to maintain the integrity of its fibers against the onset of dystrophic changes. The lesions in the various muscles of an E-low animal were not especially uniform either as to extent or severity. A certain muscle may have shown severe and extensive degeneration yet an adjacent muscle would be considerably less affected.

It was also observed that the same muscle in a series of animals was not uniformly affected. For example, a portion of the animals showed complete degeneration of their adductor magnus muscles while the remainder of the group revealed only slight or moderate changes. Individual variation must be considered in the examination of our results.

Another interesting observation was that certain individual muscles

showed degrees of dystrophy within themselves. On the same microscopic section areas were noted which were nearly normal while adjacent areas suffered moderate or even extensive degeneration.

The corresponding muscles were not usually degenerated to the same extent in each animal of the series. Some muscles, however, did show greater uniformity both as to extent and severity of the lesions than others. The diaphragm, flexor digitorum profundus, psoas major, and sternomastoideus were almost always affected to the same extent in all animals of the E-low groups. The muscles exhibiting a somewhat greater difference in the amount of damage included the gastrocnemius, semi-membranosus, biceps, triceps, erector spinae, serratus anterior, and the acromio-trapezius.

The group which had the widest range of variation in the severity of the dystrophy consisted of the adductor magnus, the extensor digitorum communis, and pectoralis major. From the differences noted in these muscles it was apparent that the degree of protection of each individual muscle against dystrophy varied considerably within the experimental E deficient groups. However, in the entire group of E-low animals it must be remembered that fifteen of the seventeen muscles invariably showed some degree of degeneration. The two exceptions to this general observation were the tongue and the masseter.

To further investigate the interesting observation that certain E low rats experienced an apparent spontaneous regeneration of skeletal muscles after extensive degeneration, muscle biopsy specimens were obtained at the height of the dystrophy. These sections were compared then with the recovered muscle at autopsy several weeks later.

The biopsy skeletal muscle was definitely dystrophic. Widespread muscle degeneration was present. This picture agreed in general with the observations previously described for animals showing marked manifestations of this nutritional muscular dystrophy.

After an apparent recovery from the disease, histological examination of the gastrocnemius showed a marked restoration to normal of the muscle fibers. The cross striations were clear-cut and definite; the nuclei were normally spaced in their typical hypolemmal positions; the diameter of the fiber was normal; and the tinctorial reactions were typical of healthy normal muscle. The old necrotic fibers had been completely resorbed and replaced by newly differentiated young fibers. There appeared to be no permanent scarring of the muscle tissue due to the degeneration.

#### EXPERIMENTAL STUDIES ON OLD VITAMIN E DEFICIENT RATS

One hundred rats were studied in this phase of the research. Their ages ranged from seventeen to twenty-two months. Eighty rats of the group were experimentals. These rats were placed, at the time of

rosin. Calcification of isolated muscle fibers was noted in some animals. A few slides showed extensive areas of calcification. The beginning invasion of phagocytic cells was then noticeable. These histological changes were found in animals showing marked locomotive impairment.

When clinical signs of definite paralysis occurred, such as dragging of the hind extremities, the second stage could be demonstrated histologically. This phase was characterized by the fact that there was an extensive infiltration of leucocytes. Rows of newly formed muscle nuclei indicated the position of preexisting fibers. Some of the original muscle nuclei, displaced and distorted by the swelling of the fiber, were also found crowded on the sarcolemma. Later they underwent complete karyorrhexis and usually disappeared. The collapsed fibers often contained only granular debris and newly formed nuclei with many mitotic figures. The sarcolemmal sheaths persisted however, and did not undergo degeneration.

In the regeneration phase of this dystrophy, characterized clinically by an improvement in locomotion and lessening of the paralysis, there was already histologically a regeneration of part of the muscle fibers. Within an area filled with infiltrated leucocytes, connective tissue elements and debris, newly formed isolated muscle nuclei appeared. These fibers always appeared in connection with the rows of muscle nuclei. Subsequently, new fibrils developed between the nuclei and regenerated fibers with well defined cross and longitudinal striations. The nuclei stained lightly with hematoxylin and were at first centrally placed in the fiber.

All of the vitamin E deficient suckling young showed some degree of degeneration in fifteen of the seventeen muscles studied. The muscles of the tongue, however, were normal in all except one animal. The masseter was partially protected from the dystrophy as evidenced by the finding of complete normality of this muscle in three of the eight animals. The lesions were of the type already described.

The extensive spread of the degeneration to every large muscle group in the entire skeletal musculature of these E deficient young was very significant. It illustrated the inability of any of these muscles to maintain the integrity of its fibers against the onset of dystrophic changes. The lesions in the various muscles of an E low animal were not especially uniform either as to extent or severity. A certain muscle may have shown severe and extensive degeneration yet an adjacent muscle would be considerably less affected.

It was also observed that the same muscle in a series of animals was not uniformly affected. For example, a portion of the animals showed complete degeneration of their adductor magnus muscles while the remainder of the group revealed only slight or moderate changes. Individual variation must be considered in the examination of our results.

Another interesting observation was that certain individual muscles



showed degrees of dystrophy within themselves. On the same microscopic section areas were noted which were nearly normal while adjacent areas suffered moderate or even extensive degeneration.

The corresponding muscles were not usually degenerated to the same extent in each animal of the series. Some muscles, however, did show greater uniformity both as to extent and severity of the lesions than others. The diaphragm, flexor digitorum profundus, psoas major, and sternomastoidaeus were almost always affected to the same extent in all animals of the E low groups. The muscles exhibiting a somewhat greater difference in the amount of damage included the gastrocnemius, semimembranosus, biceps, triceps, erector spinae, serratus anterior, and the acromio trapezius.

The group which had the widest range of variation in the severity of the dystrophy consisted of the adductor magnus, the extensor digitorum communis, and pectoralis major. From the differences noted in these muscles it was apparent that the degree of protection of each individual muscle against dystrophy varied considerably within the experimental E deficient groups. However, in the entire group of F low animals it must be remembered that fifteen of the seventeen muscles invariably showed some degree of degeneration. The two exceptions to this general observation were the tongue and the masseter.

To further investigate the interesting observation that certain E low rats experienced an apparent spontaneous regeneration of skeletal muscles after extensive degeneration, muscle biopsy specimens were obtained at the height of the dystrophy. These sections were compared then with the recovered muscle at autopsy several weeks later.

The biopsy skeletal muscle was definitely dystrophic. Widespread muscle degeneration was present. This picture agreed in general with the observations previously described for animals showing marked manifestations of this nutritional muscular dystrophy.

After an apparent recovery from the disease, histological examination of the gastrocnemius showed a marked restoration to normal of the muscle fibers. The cross striations were clear-cut and definite; the nuclei were normally spaced in their typical myolemmal positions; the diameter of the fiber was normal, and the tinctorial reactions were typical of healthy normal muscle. The old necrotic fibers had been completely resorbed and replaced by newly differentiated young fibers. There appeared to be no permanent scarring of the muscle tissue due to the degeneration.

#### EXPERIMENTAL STUDIES ON OLD VITAMIN E DEFICIENT RATS

One hundred rats were studied in this phase of the research. Their ages ranged from seventeen to twenty-two months. Eighty rats of the group were experimentals. These rats were placed, at the time of



weaning (twenty-one days), on a vitamin E-low diet and were maintained on this diet throughout the experiment. They all had a history of resorption gestation between days sixty to one hundred. This procedure established the proof of their vitamin E deficiency. The twenty control animals were littermates of the experimental animals.

In the old vitamin E-deficient rats, marked gross muscle atrophy was noted and was especially severe in the muscles of the thigh and hind limbs. The muscle tissue appeared pale, dull and flabby. Rather extensive streaking of the muscle with fat and connective tissue strands was a characteristic finding. The muscles were a yellowish brown in color.

A marked infiltration of leucocytes and connective tissue elements was noted. Cross striations were usually reduced and in some cases were entirely lacking. Many of the muscles and sarcolemmal nuclei were shrunken and pyknotic, staining deeply with hematoxylin.

Within the sarcolemma multiplication of nuclei often occurred. The nuclei were arranged in rows parallel to the long axis of the fiber often being centrally placed in the fiber. The chains of nuclei in some instances persisted after the necrotic fibers had been resorbed and the sarcolemma had collapsed. The degenerating fibers were often replaced by fat and other connective tissue elements.

Atrophy of the individual muscle fibers was a constant and outstanding phenomenon. These atrophic fibers were often reduced to half their normal size and were usually arranged in bundles of fibers. Atrophic fibers interspersed with normal fibers, however, were common. Nevertheless these atrophic fibers usually maintained their cross striations.

The almost complete absence of hypertrophic fibers in the muscles of these old animals was very striking. Practically no Zenker or hyaline degeneration was noted in any of the forty-eight animals studied. This was in contrast with the paralyzed young rats, where Zenker degeneration predominated during the early stages of the dystrophy. Calcification of fibers was often noted.

All of the muscles examined of the vitamin E-low group showed some degree of degeneration. These lesions varied in degree in various muscles and in different individuals. The muscle lesions of this group were the same as those of the larger group already described. It is to be noted that the serratus anterior was the most severely affected muscle, with the acromio trapezius being the next most affected muscle.

The uniformity of severity in the lesions of several of the muscles studied was striking. The erector spinae was the most consistent. This muscle had a one plus value for all of the E-low animals except one animal, which had a two plus reading. The muscles that kept within range of a one plus difference were the semimembranosus, biceps, psoas and sternomastoideus. All the other muscles exhibited a wide range of variation in the amount of degeneration. Their range was from

one plus to three plus. It should be noted here that none of the muscles reached the degree of degeneration that was repeatedly observed in the muscles of the paralyzed suckling young.

#### CONCLUSIONS

Extensive histological investigation indicates that the skeletal muscles of stricken young rats undergo a waxy hyaline or Zenker type degeneration. The old age group of vitamin E deficient animals do not show Zenker degeneration but the muscles disintegrate by progressive atrophic processes which finally cause the loss of fibers and the possible destruction of the sarcolemmal sheaths. These degenerative differences are believed to account for the spontaneous skeletal muscle regeneration that occurs frequently in the suckling young but not in the old age group. The regeneration described occurs in the absence of vitamin E therapy.

It is also concluded that most muscles of the rat are affected by degenerative changes in the absence of vitamin E intake. The muscles concerned with the chewing of food are most adequately protected. Not only does considerable variation exist in the amount of degeneration experienced by the skeletal muscles of the same animal but the same muscles in the entire experimental group also varied widely in the amount of their degeneration.

As vitamin E deficient rats pass progressively through conditions of ataxia, ataxia, and paralysis, it is difficult to judge the amount of muscular damage present by observing their behavior, except in broad terms. Considerable histological variation may accompany similar behavior deficiencies. Likewise, the young rats undergoing spontaneous recovery often show slight persisting muscle lesions after their functional capacity appears to have returned to normal.

Suckling young rats may be protected against the development of muscular dystrophy by the administration of alpha tocopherol (vitamin E), either directly by mouth or indirectly through the lactating mother. It is quite certain that vitamin E therapy does not protect the old age animals after the development of marked symptomatology. It is doubtful that vitamin E administration protects the suckling rats after the onset of symptoms.

## THE ANALYSIS OF A CERTAIN $6 \times 6$ LATTICE WITH FOUR GROUPS

by BOYD HARSHBARGER \*

During the past several years there have been developed lattice designs which are used extensively in varietal trials. The set-up of the experiments resembles that of "randomized blocks", the plots being arranged in blocks in separate replicates. The number of varieties to be tested must be a perfect square. Within each replicate are arranged  $k$  blocks of  $k$  varieties each,  $k$  being less than the total number of varieties. With such an arrangement, and with a suitable grouping, the mean yield of any variety can be adjusted for the fertility gradients of the blocks within which that variety lies, thus permitting a better comparison of varieties. Cochran and Yates have been the chief contributors of methods of analysis for such designs.

When an alteration is made in the standard design, the regular procedure of analysis does not apply. Hence, a new method must be devised. The analyses for these variations appear to be much more involved than the simple methods applicable to the standard forms. One such departure from the standard triple lattice design is the  $6 \times 6$  lattice with four groups. The first three groups form a triple lattice and can be analyzed as such. However, the introduction of the fourth group, which is to be considered jointly with the other three, necessitates the development of a new method of analysis since several pairs of varieties appear together in more than one block.

Such a lattice was used on the Arlington Experimental Farm to test the yields of thirty-six varieties of corn. In this particular experiment the arrangement of the varieties in the field, except for randomization within the blocks and of the blocks themselves, was as follows: ( $v_i$  represents the yield of variety  $i$  in block  $j$  for a given plot).

GROUP X

Blocks						
1	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
2	$V_7$	$V_8$	$V_9$	$V_{10}$	$V_{11}$	$V_{12}$
3	$V_{13}$	$V_{14}$	$V_{15}$	$V_{16}$	$V_{17}$	$V_{18}$
4	$V_{19}$	$V_{20}$	$V_{21}$	$V_{22}$	$V_{23}$	$V_{24}$
5	$V_{25}$	$V_{26}$	$V_{27}$	$V_{28}$	$V_{29}$	$V_{30}$
6	$V_{31}$	$V_{32}$	$V_{33}$	$V_{34}$	$V_{35}$	$V_{36}$

\* A.B. 1928, Bateswater College, M.S. 1931, Virginia Polytechnic Institute; A.M. 1935, University of Illinois, Ph.D. 1937, Cornell University.



## GROUP Y

Blocks

7	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
8	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
9	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
10	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
11	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
12	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$

## GROUP Z

Blocks

13	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
14	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
15	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
16	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
17	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
18	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$

## GROUP U

Blocks

19	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
20	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
21	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
22	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
23	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$
24	$V_1$	$V_2$	$V_3$	$V_4$	$V_5$	$V_6$

Each of the above groups was replicated.

A statistical method, which seems sufficiently general to apply to certain other departures from the standard lattices, is developed for the analysis of this experiment.

The analysis is broken down into four parts. In the first of these only the intra-block information is used for the adjustment of the variational means. To accomplish this and for the analysis of variance, the "Fitting of Constants", as developed by Yates, is applied. Constants



are fitted for the mean, replicate, inter block, intra-block, and varietal effects. The solutions for the constants for the mean, replicate, and inter-block effects are orthogonal and direct. However, the solutions for the others are entangled and quite involved. The adjusted varietal means are obtainable from the adjusted varietal sums by dividing these by the number of replicates. The sum of squares for each of the effects is derived. These are arranged in an analysis of variance table in order to provide an "error" for testing the varietal effects. A method is given for the determination of the standard error of the difference between two varietal means by expressing the difference between the two means as a linear function of the individual plot yields. The variance of this difference is found by determining the variance of the before-mentioned function. Four values are derived for the standard error as the variance differs according as the two varieties: (1) occurs in the same block in Groups X or Y, (2) occurs in the same block as Groups Z or U, (3) occurs in the same block in Groups Z and U, or (4) do not appear together in the same block.

In part one the analysis follows the lines originally developed by Yates. It does not, however, utilize all the information given by the experiment. Referring to group X, since block 1 contains varieties 1 to 6 and block 2 contains varieties 7 to 12, the difference between the means of these two blocks is also an estimate of the difference between the first six varieties and the second six varieties. The information obtained from such inter-block comparisons was ignored in part one of the analysis. In attempting to use this information, the chief difficulty is to decide how estimates derived from the comparisons of block totals shall be weighted in with the previous estimates. Since each block consists of six plots, comparisons between block totals may be expected to have a higher error variance than within block comparisons, just as in split-plot designs the main-plot comparisons usually have a higher error than the sub-plot comparisons. The problem is, therefore, to estimate the relative error variance of the inter- and intra-block comparisons and then to combine the two types of estimates to the best advantage. For the standard lattice designs Yates and Cochran found a convenient solution by the device regarding the design as a factorial. A more general approach is used for the design discussed here.

The method again necessitates the "Fitting of Constants". However, the adjustments for the varietal means are so calculated that the intra- and inter-block comparisons are weighted according to their relative precision. The determination of these weights and their utilization to obtain more accurately adjusted varietal means are fully discussed in the dissertation. The derivations of the formulae for the adjusted varietal means, using recovered information and the formulae themselves, are very complicated. Suggestions are made for the determina-

tion of the standard errors of the difference between two adjusted varietal means. Again, as in the case where only intra-block information was used for the adjustment of the varietal means, there are four standard errors.

A precision test is made by determining the average variance of all comparisons and comparing it with the variance obtained from completely randomized blocks. The comparison has the advantage that it is made under the same experimental conditions. The gain will be considerable if the use of small blocks eliminates a large portion of the variance attributable to soil heterogeneity.

The third and fourth parts of the paper are devoted to the application of the method of analysis developed in the first two sections to the before-mentioned experiment dealing with varieties of corn. In the practical application of the theory the block effects, as they are the least numerous, are calculated and are used to obtain the varietal effects. The mean, replicate, and inter block effects are obtainable directly and easily. Likewise, the sum of squares, the sum of squares for block effects corrected for varietal effects, the sum of squares for blocks ignoring varieties, and the sum of squares for varieties ignoring blocks are calculated. The reduction to the sum of squares due to varieties after constants have been fitted, can be obtained by substitution, using only previously calculated results. In the fourth part the calculation is shortened by the utilization of certain functions rather than the parameters themselves.

The results indicate that if a simple analysis is desired, one of the standard lattice forms should be used. As in this instance the analysis of more complicated lattice designs is possible but very tedious. The procedure as here developed is general in many respects and can be applied to other modified lattice forms. The method permits an increase in precision of a  $6 \times 6$  lattice if a real difference in block fertility exists.

The value of the paper lies in the fact that the technique of the solution applies to the determinants met with in the analysis of incomplete blocks, lattices, split lattices, etc. In many field trials and biological experiments non-orthogonality is introduced by the nature of the problem or by accident. Then too many experiments which have been run are faulty in design and this method affords an illustration of an approach suitable for their analysis.

## HEYWOOD'S THE RAPE OF LUCRECE

by ALLAN GIBSON HOLADAY \*

Because of its many incongruities, *The Rape of Lucrece* has long been a puzzle to critics. Even a casual reader of the play notices within it the quantities of rhyme and the curious violence of its dialogue, characteristics which had practically disappeared from Heywood's dramas before the end of the century. Valerius, that strange fusion of nobleman and singing clown, and his score of songs have inspired pages of baffled comment. Their noisy intrusion into a plot where they so obviously do not belong is impossible to ignore. Other elements no less out of place in their setting than is Valerius augment the array of problems facing a student of the play. Its extravagant dialogue, Latinate diction, and rhyme—all characteristics of style abandoned by Heywood well before 1607—have increased the difficulty of interpreting this drama.

Many critics have long agreed in ascribing its anomalies entirely to Heywood's desire to please his audience. They selected Valerius, the singing Roman nobleman, as a particularly apt example of the degree to which some dramatists bowed before the demands of their audiences. More recently several scholars have united in calling the play a burlesque. They explain its peculiarities of plot and style as rather uncertainly directed satiric thrusts aimed, as Mr. Charles Whibley cautiously says,<sup>†</sup> at somebody or something.

Both these suggestions, however, fail adequately to explain the play's abnormalities. But by shifting its supposed date of composition from 1607 to those early months of 1594 which Heywood called "my Infancy of Judgment . . . and first practice", we open the way toward a solution to all its problems.

The most noticeable characteristics of style in the *Lucrece*—rhyme, inflated dialogue, and overly-emphasized emotion—occur also in *The Four Prentices of London*, another Heywood play of 1594. And a comparison of the *Lucrece* with Heywood's first three plays on the four ages reveals much closer correspondences in diction, phraseology, even in entire scenes. Since Fleay<sup>‡</sup> has identified these dramas on the ages as later revisions of crude works Heywood originally wrote for Henslowe in 1594-95, we have an explanation of these similarities. Apparently Heywood set about composition of *The Golden Age*, Henslowe's "seleo and olempo", very soon after he finished the *Lucrece*.

His great love for Shakespeare, which, unlike that of Ben Jonson, did not stop this side idolatry, provides other evidence that *Lucrece* was

\* A.B. 1918, Miami University; A.M. 1939, Cornell University; Ph.D. conferred February 22, 1941.

† Charles W. Whibley (ed.), *The Comedies of William Shakespeare and the Rape of Lucrece* (London, 1911), p. XXIII.

‡ Frederick G. Fleay, *A Practical History of the English Drama* (London, 1891), I, 282 ff.



written early. Heywood, with his abnormal sensitivity to fine poetry, was so affected by *Titus and Adams* from the pen of "mellifluous and honey-tongued Shakespeare" that he was inspired to compose his highly imitative *Oenone and Paris* (S. R. May 17, 1594). His work weaves into one tissue a wealth of imagery drawn undisguised from Shakespeare's poem; for Heywood, in frank admiration, had steeped himself in his master's lines. And after Shakespeare's *Lucrece* appeared on John Harrison's stalls in May or June 1594, we should expect Heywood to set about another imitation. It is surely more likely that Shakespeare's poem would inspire such effort in him immediately rather than thirteen years later. The heavy debt which Heywood's play owes to Shakespeare's poem is further indication that he began its composition while under the spell of Shakespeare's *Lucrece*.

Apparently Heywood sold his play to a troupe of actors, probably Worcester's men, who presented it the same year, for Michael Drayton in his *Legend of Matilda* (1594) spoke of

*Lucretia*, of whom young Rome has heard long,  
*Lucretia* named to live another age,  
 And here attended to tell of *Titus* his wrong,  
 Her father's death, and the *Trojan* name,  
 And how her *Lucretia* should at once atone

After its early performance in London the play seems to have passed, along with many of its owners by Worcester's men, into the possession of the actor Robert Browne, who took it on his tours to Germany. Although we have no record of this transfer, our supposition that it occurred rests on more than mere probability. In 1599 a German play on the *Lucretia* theme and, like Heywood's drama, indebted to Livy was staged in Strassburg.<sup>1</sup> Since German dramatic performances of the time were presented chiefly by touring English troupes, this *Lucretia* play may well have been a Germanized version of Heywood's work. Browne regularly translated his plays before performance in Germany, and, interestingly enough, he and his men were playing in Strassburg late in 1599.

After this fleeting glimpse of the *Lucretia* it sinks again into oblivion. Since Browne between tours often played in England, it was probably performed there. In Ben Jonson's *Cynthia's Revels* (1601) occurs the line, "He makes a face like a stab'd *Lucretia*", which suggests that while Browne was associated with Derby's men in the winters of 1599-1600 and 1600-1601, the *Lucretia* was staged again.

In March 1607, Browne was forced by financial troubles to leave Germany, where he had been playing, and return to England.<sup>2</sup> In London he sought help of his old friends, Worcester's men, but found them also fallen on evil days. Most of the troupe was on tour, but Heywood, who

<sup>1</sup> W. W. Greg, *Plays and Playwrights of the Elizabethan and Jacobean Period* (Oxford, 1911), I, 215.  
<sup>2</sup> *The Works of Ben Jonson*, ed. G. B. Evans (London, 1912), p. 102.  
<sup>3</sup> *The Works of Ben Jonson*, ed. G. B. Evans (New York, 1912), I, 102.



wood's play of dialogue from *Caesar* and from the comedies, particularly *Twelfth Night*.

When one leaves Shakespeare and Livy to seek Heywood's sources among other versions of the *Lucrece* legend, he treads uncertain ground. By Elizabeth's time many a poet and story teller had recounted the tale; Heywood had, besides the numerous English versions, several in Greek and Latin from which to choose. A striking similarity between a line from the play and a passage out of the second novel in William Painter's *Palace of Pleasure* indicates that Heywood at least had read Painter. He probably knew also the *Lucrece* story as Ovid and Dionysius of Halicarnassus tell it, since in several instances his plot follows theirs in minor divergences from Livy's account. But if he read the story from the pens of Chaucer, Gower, Diodorus Siculus, Valerius Maximus, Hieronymus, Servius, Florus, and Plutarch, these accounts did not influence his play.

#### THE STAGE HISTORY

As the title page of the *Lucrece* tells us, this play was often performed at the Red Bull by the Queen's men. Its presentation was not confined to the stage of this theater, however; for on January 13, 1612, the Monday after *Twelfth Night*, the combined companies of the King's and Queen's men performed the play at Greenwich before the Queen and young Prince.\* This particular *Twelfth Night* must have been especially gratifying to Heywood, for on the day before the presentation of his *Lucrece*, the combined companies performed his *Silver Age*.

Although the Queen's men acted principally at the Red Bull until 1623, they seem also to have performed in 1617 at the Cockpit.† Since *The Rape of Lucrece* was in their repertoire at this time, probably it was presented there. A few years later, on August 7, 1628, after the *Lucrece* had passed, through the agency of Heywood or Beeston, to Queen Henrietta's men, it was performed before the Duke of Buckingham at the Cockpit.§

In the dozen years from 1607 to 1619, while the *Lucrece* was owned by Queen Anne's men, it was surely performed many times in the provinces. Some part of this troupe was on tour every year from 1605 through 1617, and we may assume with some certainty that the *Lucrece* enjoyed an unusual popularity with the audiences of the Midland and southern towns as well as with those of the city.

After the play passed into the hands of Beeston's Boys, its history is difficult to trace. Probably this company staged it, since its popularity merited publication of new editions in 1630 and 1638. By the time of Heywood's death in 1641 its appeal was decidedly waning; and after

\* Mary S. Steele, *Plays and Masques at Court* (New Haven: 1926), p. 170.  
 † *The Works of William Shakespeare* (London: 1010), I, 105.  
 § Arthur M. Cross, *The Works of William Shakespeare* (Oxford: 1911), p. 15.

Nathaniel Butter issued the fifth edition, it was not reprinted for nearly 200 years. Probably it passed completely from the English stage before the closing of the theaters in 1642.

Its popularity in Germany, if not so intense as that it enjoyed in England, at least survived longer. In August 1619, Heywood's *Lucretia* was performed in Danzig by a troupe of touring English *Komödianten*.<sup>\*</sup> Creizenach mentions another performance in Lüneburg as late as 1664.<sup>†</sup> Since in this same year a play called *Tarquin* was also staged in Lüneburg by the same troupe, probably the *Lucretia* had been divided and the first part acted as the story of *Tarquin*. Because of Browne's early success with *Lucretia* in Germany, one notes with interest that long after passing from the English stage it was still applauded on the Continent.

\* Heywood, *et al.*, p. 10.  
† W. Creizenach, M. A. Creizenach  
Stuttgart, 1889, p. XXXI

Die Schauspiele der englischen Komödianten (Berlin und

## THE EARLY DIPLOMATIC CAREER OF JOHN A. KASSON

by EDWARD EUGENE YOUNGER \*

John Adam Kasson, a political leader from Iowa, arrived in Washington in the spring of 1861. He came to witness the inauguration of Abraham Lincoln as President of the United States. During Mr. Kasson's stop in the nation's capital, he was appointed Assistant Postmaster General. This position served as a beginning for his national service. Within the next twenty-five years he was to represent his country on diplomatic missions which took him to Paris, Vienna, Belgrade, and Berlin.

On these missions, Kasson stood out with some degree of prominence. By interspersing domestic politics with his assignments on foreign missions, he served successfully six terms in the lower house of Congress.

He was born in 1822 on a farm near Charlotte, Vermont. In his early years his family moved to Burlington, so that he and his brother might attend the state university. After graduation, he studied law in his brother's office. When he had completed this reading, he settled in Worcester, Massachusetts. It was here that he was admitted to the bar at the age of twenty-two.

Mr. Kasson then moved his office to New Bedford, where he practiced in the Admiralty Courts. It was here he obtained a practical knowledge of international law. He was most successful in this practice and during this time he became vitally interested in the cause of anti-slavery. In 1848 he was chosen by the Worcester "Free Soilers" as a delegate to the Free Soil Convention at Buffalo. Here he took a prominent part in the convention and, upon his return to Massachusetts, he was nominated for Congress from the New Bedford district on the Free Soil ticket. He declined this honor, as he had determined to move to St. Louis, Missouri. In this latter city, he was immediately successful and made valuable and lasting friendships.

Kasson, however, disliked some of the aspects of life in St. Louis. The climate was damp and was injurious to his health. He was not satisfied to settle in a state that was controlled by pro-slavery elements. Hence, in 1857 he made his way to Iowa. He found little difficulty in making a place for himself in this young state.

Kasson became an active Republican and was made chairman of the State Republican Committee. In this position he helped organize the infant "Black Republican" Party. It was only natural that, when the Republicans assembled at the Wigwam in Chicago to choose their candidate for president, he should be the delegate from his state. At the convention he was made a member of the Committee on Platform. Dur-

\* A.B. 1913, Arkansas Teachers College; A.M. 1918, Oklahoma Agricultural and Mechanical College; Ph.D. conferred 1922.



ing the ensuing campaign, he took the stump in behalf of Lincoln and traveled extensively throughout the West.

His Republican interest brought Kasson to Washington in 1861 for the Republican inauguration. The position of First Assistant Postmaster General, to which he was appointed, might easily have been a routine job with patronage dispensation as its chief function, but Kasson chose to make it a position of importance. His most significant contribution was a careful supervision of foreign mail distribution and foreign correspondence. His connection with these matters paved the way for a unique personal experience in foreign relations, that is, an improvement in international postal relations. His career in this field extended over a half-century.

Prior to 1863, the defective system of international mail service was regulated by postal conventions concluded between individual states. They were in accordance with national interests. The aim of the postal service was not necessarily to improve the mail service, but rather to try to make the foreigner pay for the distribution. The treaties by which this system was maintained were complex and rates showed little or no uniformity. There were almost as many different postal rates for ocean transit as there were for steamship companies carrying the mail. Kasson felt that the situation should be improved and proposed an international concert of action in August of 1862.

Upon his suggestion, the United States Government invited several nations to an international postal conference which met in Paris in 1863. Kasson, as delegate to the conference, played a practical and effective role in bringing about a more complete understanding of the principles which should control the postal service. The conference which was called agreed to a scale of charges based upon uniformity of weight. Four years following this conference, Kasson again represented the United States on a foreign postal mission. This time he was sent as a special commissioner to negotiate postal treaties on the basis of the principles agreed to in Paris. As a result of this mission, he was successful in negotiating postal conventions with Great Britain, Belgium, The Netherlands, Prussia, Switzerland, and Italy. These conventions included uniform and reduced rates for all the nations.

Kasson's activities in behalf of liberal international postal intercourse kept alive the idea of a world postal union which had been mentioned in the Paris conference. In the development of this union, which came into existence in 1874, Kasson should receive high recognition. His activities in behalf of international postal relations constitute perhaps his most signal achievement.

Ten years elapsed after the conclusion of the postal mission of 1867 before Kasson again had the opportunity to represent the United States in foreign countries. In 1877, he was appointed Minister to Austria-



Hungary. This appointment was made because he had been a party leader, for appointments to the diplomatic corps at that time were not based upon merit. The positions were given to those who contributed most liberally to the campaign fund and to those who by other means served the party best. The election of 1870 was a critical one for the Republican Party. Kasson was tired of membership in Congress and was casting about for a higher position. Therefore, in the Hayes-Tilden election, he played a vigorous but dubious part. In the campaign he joined other Republicans in an attempt to smear Tilden. When the contest resulted in a deadlock, he was one of the Republican "statesmen" who saw that the Florida returns were cast for Hayes. Later, he most effectively organized the Hayes case before the Electoral Commission. It was after Hayes was inaugurated that he received the appointment of Minister to Vienna.

Kasson's mission to Austria-Hungary extended over four years of the period usually known as the "doldrums" in American diplomacy. Few problems of importance demanded action or attention. For the most part, our dealings with countries abroad were amicable, and, if American diplomacy during these years should be described as stagnant, the description may be applied with emphasis to our relations with Austria-Hungary. There was no special diplomatic problem which required his attention in the beginning of his mission and none of any great importance arose until he was on the very point of leaving Vienna in 1881.

Unhampered by controversial problems which required time to settle, he paid special attention to keeping his government well informed on the trends of the day as he understood them from his diplomatic contacts. The writing of his reports on external affairs became Kasson's most important function. The dispatches which constantly poured into the State Department contained penetrating observations on both national and international issues of the day. His reports reveal a man exceedingly patriotic, ever alert to his country's dangers. They reveal a man who ardently believed in commercial development and territorial expansion for his country. They argued for an aggressive foreign policy.

Kasson's program for expansion included a diplomatic and consular service based on career and training, a trans-Isthmian Canal controlled exclusively by the United States, the creation of a large navy, and the obtaining of outlying colonies. His desire to increase American commerce in Europe caused him to urge the opening of diplomatic relations with Russia and Serbia which had been made independent by the Congress of Berlin.

From 1879 to 1881, as Minister to Vienna, he conducted negotiations with these two Danubian states for the purpose of securing commercial and consular treaties. He left these negotiations in such a situation that

his successor had little difficulty in concluding the treaties. Before his final departure from Austria, he had the pleasure of knowing that formal diplomatic relations with each of these countries had been established. Judged from his activity as the American envoy at the court of Francis Joseph, Kasson might have been entitled a "roving observer" of European politics. He was well liked in official circles at Vienna and relations between Austria and the United States were cordial upon his departure.

Near the end of his sojourn in Austria there arose a diplomatic dispute, the only one between Washington and Vienna which demanded his attention. Without warning, Austria, Germany, and other continental powers prohibited American pork products from their markets. Kasson participated in the ensuing controversy first in Austria and three years later in Germany. In the summer of 1884 he was sent to Berlin to restore German-American relations which had become strained by events arising from the prohibition of American pork in the Reich. In neither country was he successful in effecting a removal of the discrimination nor did any other American diplomat succeed where he failed. For ten years Secretaries of State in Washington and diplomats in Paris, Berlin, Vienna, and the lesser continental capitals pressed for the repeal of the annoying decrees with little success. They failed simply because it did not lie within their power to take the necessary steps for a solution of the difficulty. These steps—the power to set up in the United States a thorough system of meat inspection and the power to retaliate against foreign discrimination—were essentially functions of Congress. Only after such steps were taken did the Department of State succeed during the years immediately following 1890. In Berlin, although he made little effort to settle the pork controversy, the major purpose of his mission, to restore good relations between the United States and Germany, was successful.

He had been in Germany less than two months when he was made head of the American delegation to participate in the Berlin Congo Conference of 1884-1885. This highly important gathering of diplomats and technical advisers from all the major nations and some of the lesser ones was in reality an international concert of powers occasioned by Europe's scramble for colonies in Central Africa. The motives in calling the Conference were, in the order of their importance, political, commercial, and humanitarian. America's participation in this European concert was the most serious deviation from the traditional policy of isolation ever experienced by the Republic up to that time. Kasson shares responsibility, first, for our accepting the invitation to attend the Conference and, second, for the highly significant activities of the American representatives during its progress. As a result of the concert, he hoped to obtain absolute freedom of commerce for American business enterprise. As a guarantee of such freedom, he urged the government at Washington to

send warships to the mouth of the Congo and to secure from the natives a suitable location for American trading posts or colonies. Impressed with the envoy's desires, the Secretary of the Navy despatched warships to the region during the winter of 1884. The commanding officer, however, did not think it advisable to start a colony on the Congo, since the country was unhealthy and the natives could hardly raise enough food for themselves.

Kasson's activities at the Berlin Congo Conference were evidence of his desire to increase the power and prestige of the United States. The same motives which had prompted him to urge the building of a Nicaraguan canal and expansion in the Pacific had led him to endorse American participation in the Conference. To expand American commerce, American territory, and American influence was his aim. His conduct in the Conference was entirely consistent with his views of a proper foreign policy for his country, and to a great extent, with the views of his Secretary of State. The fact that the General Act of the Conference was rejected by the incoming Cleveland administration was not an adverse reflection upon his ability as an American diplomat, but it did indicate that the country in 1885 did not share his sentiments on the policy of expansion.

Kasson, as was customary with a change in the administration at Washington, gave up his post at Berlin upon the inauguration of President Cleveland. Early in the summer of 1885, at the age of 63, he returned to Washington with the intention of retiring from active political life. Other important diplomatic missions were yet to follow, but in each case the job sought the man without active solicitation on his part. Prior to 1885, a career in diplomacy seemed to be secondary to his ambition for higher political positions at home. Although, up to this time, he was a politician first and a diplomatist second, he had given a good account of himself in foreign capitals. Some of his generation stood out more conspicuously than he, but few men blended in the general competency of the period more than he.

In personal bearing he was cool and suave, perhaps lacking great personal magnetism. In his daily habits, he was a precise man, a tireless worker, and a master of details. He was not an imposing figure so far as the general public was concerned and did not catch the popular imagination quickly, but he performed his duty with unusual ability and deserves an honorable place among American diplomats.

In foreign relations he possessed much breadth of view for his time and supported whole-heartedly practical measures of international co-operation. He showed a willingness to enter into the protection of weaker nations, an interest in defending weaker peoples, and a genuine desire to promote the cause of peace. Living in European centers of diplomatic intrigue for more territory, markets, and raw materials,



Kasson caught the spirit of imperialism sooner than his American contemporaries. He saw in the European competition for overseas possessions a menace to the security of the United States. He feared that the time would come when the markets and strategic places of the world would be possessed by powers other than his own country and the United States would be encircled by nations not averse to the use of armed force to obtain their ends. To meet such threats, he advocated American supremacy in the Caribbean and the Pacific.

The first phase of his program embraced the building of an Isthmian canal to be controlled exclusively by the United States. The Monroe Doctrine would have to be expanded to permit this construction. In the second place, strategic islands flanking the canal should be possessed by the United States before they were seized by the other powers. Finally, in order to protect the canal and the colonies, a large navy would be necessary. His program embraced the great trinity in American foreign policy which was so ardently espoused by men such as Theodore Roosevelt, Henry Cabot Lodge, and Alfred Thayer Mahan a few years later. It was a policy of imperialism of which Kasson was the prophet.



## STUDIES IN THE METABOLISM OF MANNOSE

by WILLIAM HENRY BAILEY III\*

A review of the literature on mannose metabolism does not reveal reference to the finding of increased mannose in the blood nor of a hyperglycemia following mannose administration to man or animals. Mannose tolerance along with determinations of blood glucose and blood lactate were carried out in the present studies. The intact rabbit, a standard animal in carbohydrate metabolism, was used exclusively in this work. The preparation of mannose from 1-methyl mannoside was carried out. The application of *Proteus vulgaris* as a reagent for glucose was tested on blood filtrates. The conversion of mannose to glucose in the rabbit was studied. A procedure for following sugar tolerance and blood lactic acid in the resting rabbit was developed, and the influence of mannose on blood lactate was studied.

Although mannose can be purchased from chemical and drug houses, it is rather expensive. In addition, the possibility of its containing small amounts of toxic substances such as phenylhydrazine or heavy metals, when prepared by the ordinary methods in the literature, could not be overlooked. Such impurities could possibly be removed by recrystallization, but in the experience of the writer mannose is at best difficult to crystallize, and losses introduced by such procedures would make the expense of the commercial product even greater. Therefore it was deemed advisable to prepare sufficient mannose for the metabolic studies to follow.

Pure mannoside was prepared according to well known methods and this substance was hydrolyzed by refluxing in 20% formic acid (at a concentration of mannoside of 5%). It was found that about fifty hours of refluxing was needed for the hydrolysis. The acid was removed from the hydrolysate by evaporation at a pressure of about 10 mm. of mercury and at a temperature up to 40° C. The hydrolysate was concentrated under the same conditions to a thick syrup. The sugar was crystallized by mixing the syrup with an equal volume of glacial acetic acid and storing for 1-3 days at room temperature followed by storage for 4-5 days at 10° C. An average yield of 200 gm. of pure mannose (with theoretical rotation) was obtained from 500 gm. of mannoside without recrystallization by this procedure. This represents a yield of about 40% of the theoretical. The low yield of mannose obtained could be accounted for only on the basis of incomplete crystallization. The product could be confidently presumed pure enough for animal experiments, since theoretical rotation was found and since no heavy metals or toxic substances (other than those present in C.P. analytical grade reagents) were introduced during the preparation.

\* B.S. 1928, The George Washington University; Th.D. awarded June 2, 1943.

Pure zinc lactate was also prepared for use as a primary standard in recovery tests on the blood lactic acid method adopted.

A strain of *Proteus vulgaris* from the Bacteriology Department of this School was used according to the procedure of Nicholson and Archibald\* as a reagent for glucose. Slight modifications of standard blood sugar methods and standard lactic acid methods were used in this study. Recovery tests on all reagents and methods used were run, usually at the same time as a metabolism experiment, and served as controls on the procedure used in each experiment.

The first problem investigated in the metabolism studies was the effect of ingested mannose on the total blood sugar of the rabbit. This question was studied by carbohydrate "balance" experiments. If only small losses occur in the urine for a 24-hour period following sugar administration the sugar given is considered well utilized. An average of about 90 per cent retention of mannose, given in dosages up to 5 gm. per kilo of rabbit, was found. In addition mannose was found in increased amounts in peripheral venous blood, and an increase in total blood sugar was found following the administration of mannose. From the eight experiments carried out it may be concluded that mannose ingested by the rabbit produces a mild but prolonged hyperglycemia, and that mannose ingested or injected intraperitoneally is practically completely utilized.

The next problem investigated was the effect of mannose administration on blood glucose in the rabbit. The data from the experiments on mannose tolerance can be applied to the question of whether mannose is converted into glucose in the rabbit. If the increase in total blood sugar as glucose is greater than the increase in blood mannose after mannose ingestion, then either conversion of mannose to glucose or stimulation of the glucose producing mechanisms in the animal has occurred. Stimulation of glycogenolysis is unlikely since the homeostatic mechanisms of an animal organism would tend to oppose such an effect. In addition the work of Roe and Hudson† has shown that a hypersaccharemia produced by administration of mannoheptose did not lead to any significant increase in "fermentable" reducing substance in the blood of rabbits. In all of the five experiments presented it was seen that definite positive differences between the increase in total blood sugar and the increases in blood mannose were found. No measurable fructose was found present in any blood sample from a rabbit in one of the mannose tolerance experiments, so that it was concluded that a Lobry de Bruyn reaction probably did not account for the conversion of mannose to glucose.

Other workers have found that glucose, fructose, and galactose give rise to increased lactic acid in the blood under basal conditions, and it has been suggested in the literature that lactic acid might be an intermediary

\* Nicholson, I. F., and Archibald, E. J., *Quart. J. Med.*, 741 (1921).  
† Roe, J. H., and Hudson, C. S., *J. Biol. Chem.*, 107 (1935).

in the transformation of various sugars to glucose. Therefore, it was considered advisable to study the effect of mannose administration on blood lactate in the resting rabbit. Five experiments on the effect of mannose on blood lactic acid were carried out, along with two controls on the effect of glucose, and one control on the effect of mannoheptose. Before any metabolic tests were carried out, it was necessary to devise a method of keeping the rabbit in a steady, resting state. It was eventually found that intermittent administration of small doses of Nembutal would maintain the animal in a "basal" state, as evidenced by the finding of constant blood lactate levels from hour to hour in a control animal given mannoheptose. In general it was found that elevated levels of blood lactic acid paralleled hyperglycemia when glucose or mannose was used. In the case of the mannoheptose control experiment no increase in blood lactate was observed even when a saccharemia of 200 mg. per cent was reached. Because of the adequate control experiment, it was felt that changes observed in blood lactate could be considered as due only to the influence of the sugar given and to the level of saccharemia reached. Mannose administration always led to a positive increase in blood lactate.

In view of the evidence presented, the following conclusions appear to be justified.

1. Mannose as such and increased total sugar appeared in the blood of rabbits after mannose administration.

2. The rabbit has a high tolerance for mannose when this sugar is given orally or intraperitoneally.

3. Increases in blood glucose were found in rabbits after mannose administration. Thus, mannose was considered convertible to glucose in these animals. This glucose either arose by direct conversion from mannose or by way of lactic acid. Either possibility must be admitted. Perhaps a crucial answer to this question could be obtained only by the use of the "labelled atoms" technic. However, the force of the evidence obtained here would indicate that mannose is converted to glucose by lactic acid as an intermediate for two reasons, namely: (a) rather definite increases in blood lactate were observed following mannose administration; and (b) the absence of fructose was demonstrated by a specific method, and this would appear to exclude a Lobry de Bruyn rearrangement.

4. Administration of mannose to rabbits led to increases in blood lactic acid. The effect of mannose in this respect was similar to that of glucose. Marked increases in blood lactate were observed after oral administration of glucose. Oral administration of mannose had less effect on blood lactic acid than did orally administered glucose. Intraperitoneal administration of mannose, however, resulted in marked increases in blood lactate of a magnitude comparable to the response obtained with orally



administered glucose. From these findings it appears that the smaller effect of orally administered mannose is due to the lower absorption of this sugar. The effect of glucose and mannose is in contrast to that of mannoheptose. The latter produced no increase in blood lactic acid, even when a saccharemia of 200 mg. per cent was reached.

The significance of the present work is that mannose, which has heretofore been the subject of partial study in various animals and tissue preparations, has been shown to be physiologically available to the intact rabbit and to be utilized to a high degree in this animal. Although mannose is not ordinarily found in the diet, studies of the metabolism of this sugar are of theoretical interest because of the close relationship of the sugar to glucose and fructose and to compounds of special physiological interest in the animal body.



## STUDIES OF THE TISSUE CONCENTRATIONS OF ASCORBIC ACID IN THE GUINEA PIG AT DIFFERENT LEVELS OF ASCORBIC ACID INTAKE

by CARL ALBERT KUETHER\*

In spite of hundreds of papers which have appeared in the literature during the last ten years on vitamin C metabolism, the exact requirement of this vitamin remains unknown. The purpose of the present work was to obtain a reliable estimate of the vitamin C requirement of the guinea pig and to indicate a method of solution of the requirement for humans.

In general, two criteria have been used in estimating the vitamin C requirement. The first consists in determining the minimum intake of the vitamin necessary to prevent the appearance of symptoms of its lack. This might be called the minimum or subsistence level of the vitamin. The other criterion consists in determining what is known as the optimum intake of the vitamin. It is that intake above which there is no further increase in the amount of vitamin in the body, or that intake necessary to maintain a saturated state of the body with respect to the vitamin. The assumption involved here is that at the saturation level all cells in the body have the amount of vitamin requisite for optimum functioning and health. Any intake of the vitamin above that necessary to maintain this level is merely excreted or destroyed, unused.

The plan of the work was such that an estimate could be obtained of both the minimum requirement and the optimum requirement for the guinea pig. Guinea pigs were to be fed a diet containing, as far as is known, all the food substances required by the guinea pig, with the exception of vitamin C. The ascorbic acid was to be fed to the animals in known amounts at different levels. When an equilibrium was reached, the animals were to be sacrificed, the blood and representative tissues analyzed for their ascorbic acid content, and the animals examined for symptoms of ascorbic acid deficiency, both gross and microscopic. By finding that intake below which gross or microscopic pathology occurs, an estimate of the minimum requirement would be obtained. By finding that intake above which there was no further increase in tissue concentration, an estimate of the optimum requirement would be obtained. Further, if a correlation could be established between the blood level of the vitamin and the tissue level of the vitamin and, in addition, between the intake and the blood level, a method of accurately estimating the human requirement would be provided.

On a scorbutogenic diet, the ascorbic acid disappears more rapidly from the plasma than from the red cells, white cells, or platelets. Hence,

\* A.B. 1936, Miami University; M.S. 1937, Wayne University; Ph.D. 1939, June 2, 1943.

it seemed desirable to analyze whole blood rather than plasma. The only method available for whole blood analysis was that of Butler and Cushman\* which is not convenient for general use because of the fact that carbon monoxide is used in the procedure. The first problem, therefore, was that of devising a simpler method for vitamin C analysis on whole blood.

It was found that by saturating the blood with carbon dioxide, the oxidative effect of oxyhemoglobin during deproteinization could be prevented. The carbon dioxide saturation is carried out in an apparatus in which the blood can be alternately evacuated and treated with carbon dioxide under pressure. Two such treatments were found sufficient to reduce the blood completely.

Pure ascorbic acid added to blood was recovered to within 10 per cent.

**This method was not yet completely satisfactory for several reasons.** Since it is based on indophenol reduction, it is open to the criticism that can be made of all methods based on indophenol reduction, namely, that it gives a measure only of the *reduced* ascorbic acid. Any dehydroascorbic acid formed during the extraction, and this can be considerable in the case of an animal tissue, is not measured by this procedure. Also, the manipulation of the apparatus is not as simple as it might be for general use. **Thus, there is a definite need for an entirely new method of vitamin C analysis in the presence of hemoglobin.**

A method of analysis using the 2,4-dinitrophenylhydrazine derivative of dehydroascorbic acid was devised. It was found that the 2,4-dinitrophenylhydrazine derivative of dehydroascorbic acid, on solution in sulfuric acid, formed a red color which absorbed maximally from 350 to 380  $\mu$  and from 500 to 550  $\mu$ . The 350 to 380  $\mu$  region is too near the ultra-violet for ordinary use, so the 500 to 550  $\mu$  region was used. Excellent agreement with Beer's law was found in this region.

The principle of the method is as follows: The ascorbic acid in the tissue, or blood, is extracted with trichloroacetic acid, the extract treated with mercuric ion to oxidize the ascorbic acid to dehydroascorbic acid, and filtered. To the filtrate are added the acid and 2,4-dinitrophenylhydrazine, and the dehydroascorbic acid and the 2,4-dinitrophenylhydrazine allowed to couple for exactly three hours at 37°C. The coupling reaction is stopped by placing the mixture in an ice bath and the color is developed by adding sulfuric acid. The amount of color is read in the Evelyn colorimeter using filter 540. The amount of ascorbic acid is obtained by reference to a calibration curve and chart prepared by analyzing a series of standard solutions.

Substances which might be expected to give interference in this method are those which couple with 2,4-dinitrophenylhydrazine to give compounds which on treatment with sulfuric acid form colors. Among

\* J. Biol. Chem., 1936, 113, 1-14.

these are pyruvic acid, acetoacetic acid, glucuronic acid, and the sugars glucose, fructose, xylose, and so on. Spectrophotometric analysis of the colors obtained with pyruvic acid and acetoacetic acid showed that they have no absorption in the region of the 540 filter. Consequently, they can be expected to give no interference. Spectrophotometric analysis of the colors obtained with glucuronic acid, glucose, fructose, and xylose showed that they interfere slightly. Calibration of the amount of these substances necessary to give interference showed that the amount of color obtained with ascorbic acid was greater than the color obtained with these substances by amounts which averaged about as follows: glucuronic acid 1200 times, fructose 17,000 times, xylose 20,000 times, glucose 52,000 times. Thus, interference from these substances can be eliminated by dilution.

The method has been applied successfully to the analysis of whole blood, plasma, urine, and animal tissues. It is not subject to the criticism made of the indophenol method, namely, that any oxidation during extraction introduces error. Since all of the ascorbic acid is converted to dehydroascorbic acid before analysis, oxidation during the extraction is without effect.

It was found necessary to add thiourea during the coupling reaction in order to give a mildly reducing medium. This was necessary because it was found that oxidizing agents such as ferric ions and hydrogen peroxide give a slight color with the dinitrophenylhydrazine reagent. Reducing agents, such as thiourea, ferrous ions, and stannous ions, prevent the formation of this color and make a negative blank possible.

Preliminary experiments showed that the tissue and blood concentrations of vitamin C remained fairly constant after three weeks on a constant intake. A diet consisting of

	Per Cent
Ground rolled oats (Quaker).....	40
Lactogen (Nestle).....	40
Alfalfa meal.....	14
Dried irradiated Brewers yeast (Fleischmann, Std. 360)....	5
Sodium chloride.....	1

100

with added ascorbic acid gave the highest tissue concentration of vitamin C of all the diets tried and was, therefore, deemed adequate.

A solution of the original problem was then attempted. Guinea pigs were fed the above diet supplemented with ascorbic acid at three different levels, 0.05 mg. per gram, 0.2 mg. per gram and 0.6 mg. per gram of diet. Food consumption and weight of each animal were recorded daily. After at least three weeks on this diet the animals were anesthetized (Nembutal), blood drawn by heart puncture, a sample of urine



drawn from the bladder and tissues removed and extracted for analysis.

A good correlation between the blood concentration of the vitamin and the tissue concentration of the vitamin was found. However, the correlation between blood concentration and urine concentration was poor. This was partly due to the fact that single samples of urine and not 24 hour samples were analyzed.

A study of the ratio between the tissue concentration and the blood concentration suggested a new criterion for optimum intake of the vitamin. The ratios for all the tissues increased with increasing intake of the vitamin until the intake on the diet containing 0.2 mg. per gram of diet was reached. There was no further increase in the ratio after this intake was reached. The increasing ratio up to this point indicates that the concentration in the tissue was increasing at a faster rate than the concentration in the blood, and that the tissue was actively removing the vitamin from the blood. This could be interpreted as indicating that the tissue has a need for the vitamin which has not been satisfied. When the need of the tissue has been met, the ratio will stop increasing. The optimum intake will be the intake which produces the highest ratio of tissue level to blood level, or that intake which will satisfy the need of the tissues.

Application of this criterion to the guinea pig on the basis of the present data shows an optimum requirement for the guinea pig of 1.6 mg. per 100 grams per day or 1.3 mg. per square decimeter of body surface per day. Translating these data to man on the basis of body surface, the requirement for an average man, 5 feet, 8 inches and 70 kilograms, would be about 235 mg. per day. This is undoubtedly high since the actual requirement may be somewhat less than the intake of the animals on the 0.2 mg. per gram diet.

Estimation of the minimum requirement will have to await microscopic examination of the jawbones.



## SATURATION RELATIONS IN AQUEOUS SOLUTIONS OF SOME SUGAR MIXTURES WITH SPECIAL REFERENCE TO HIGHER CONCENTRATIONS

by REX ELIAS LOTHROP\*

Because the naturally occurring sugars—sucrose, dextrose, and levulose—frequently occur together in solution, solubility relationships of mixtures of the sugars in solution are of considerable importance. While the solubility of pure sugars in water has been ascertained with considerable accuracy, the solubility of sugars in sugar mixtures has been investigated only to a limited extent.

Levulose is more soluble in water than either sucrose or dextrose, and solutions of levulose in water are appreciably more hygroscopic than solutions of either dextrose or sucrose. Jackson and Silsbee at the United States Bureau of Standards have studied the solubility of dextrose in water over a wide range of temperatures. They found that dextrose hydrate is stable in solution between  $-5.3^{\circ}$  and  $50^{\circ}$  C. Above  $50^{\circ}$  C. anhydrous dextrose is the stable solid phase. The transition from dextrose hydrate to anhydrous dextrose occurs at  $50^{\circ}$  C., but the anhydrous form may persist in unstable equilibrium at temperatures considerably below the transition point.

The system dextrose, levulose, and water has been investigated by Jackson and Silsbee. Dextrose solubilities in levulose solutions were determined by them at  $30^{\circ}$  C. over a limited range of levulose concentrations, with dextrose hydrate as the solid phase. Levulose has only a comparatively slight salting-out effect on dextrose in contrast to the pronounced salting-out effect of invert sugar and sucrose. The decrease in dextrose solubility is more pronounced in the lower range of levulose concentrations studied by Jackson and Silsbee, but it soon reaches a minimum and actually increases slightly in the higher range of levulose concentrations investigated.

Jackson and Silsbee have also investigated the systems sucrose, invert sugar, and water, and sucrose, dextrose, and water. Invert sugar decreases the solubility of sucrose to a marked degree. Thus at  $30^{\circ}$  C., 100 g. of pure water dissolves 213.6 g. of sucrose, but in the presence of 216 g. of invert sugar, only 160 g. of sucrose dissolves in 100 g. of water. In the system sucrose, dextrose, and water, dextrose decreases the solubility of sucrose (sucrose solid phase), and sucrose decreases the solubility of dextrose (dextrose solid phase). This mutual salting-out effect is similar to that observed for the system sucrose, invert sugar, and water.

Solubility relations in mixtures of the two sugars dextrose and levulose in aqueous solution are directly applicable to the saccharine product honey.

\* B.S. 1920, Tulane University; M.S. 1922, University of Washington. Ph.D. conferred June 2, 1924.

since honey consists essentially of a concentrated solution of dextrose and levulose in water. Jackson and Silsbee have calculated from the solubility data they obtained on this system that all honeys are highly supersaturated with respect to dextrose, the supersaturation coefficients ranging from 1.00 for noncrystallizing types of honey to almost 3.0 for readily granulating types.

The fact that certain types of honey do not deposit dextrose crystals, even on long standing, would indicate that supersaturation coefficients calculated by Jackson and Silsbee might be in considerable error. In studying the behavior of concentrated solutions of mixtures of these sugars, however, certain observations were made that could not be explained on the basis of the solubility data obtained by Jackson and Silsbee. This fact led to the present study.

#### *Crystallization of Dextrose from Honey*

Results of studies on the crystallization of dextrose from honey at constant temperature throw light on this subject. A number of samples of honey were immersed in water at constant temperature and agitated until dextrose crystallization was complete. The resulting liquid phases of the samples were separated and analyzed. They showed a dextrose content approximately 50 per cent greater than would be predicted from the solubility values obtained by Jackson and Silsbee. This would indicate that where the concentration of levulose is considerably higher than the concentrations investigated by Jackson and Silsbee, the solubility of dextrose in solutions of levulose is appreciably greater than those obtained by them.

#### *Solubilities of Dextrose and Sucrose in Solutions of Levulose*

Since the solubility studies of dextrose in solutions of levulose previously made by Jackson and Silsbee did not include concentrations of levulose beyond 140 g. in 100 g. of water and since honey frequently shows a levulose content as high as 300 g. or more in 100 g. of water, the system dextrose, levulose, and water was subjected to further study, particular attention being given to the solubility of dextrose in the higher range of levulose concentrations. In addition the system sucrose, levulose, and water was investigated at temperatures of 20° and 30° C. For these studies highly purified dextrose, levulose, and sucrose were used.

#### *Preparation of Materials*

Levulose was prepared from crude (Pfanstiehl) levulose by crystallization from alcohol. The water solution was first decolorized with "Norit" or a similar brand of vegetable dechlorizing carbon, and then evaporated under diminished pressure to a syrup and taken up in alcohol. The alcohol solution was then seeded, and crystallization carried out at a low

temperature. It was found that by adding sufficient nitric acid to the alcohol solutions in the first crystallization to convert all magnesium present to magnesium nitrate the levulose could be prepared virtually free of ash. Since magnesium nitrate is very soluble in alcohol it remains in solution and does not separate with the crystals of levulose. Three recrystallizations from alcohol resulted in levulose of very high purity. Pure anhydrous dextrose was prepared by crystallizing commercial dextrose twice from alcohol, after decolorizing the solution with vegetable charcoal, and drying the crystals in vacuo at 70° C. The hydrated dextrose was prepared by crystallizing commercial dextrose from water solution and drying the crystals in thin layers below 50° C. Pure sucrose was prepared by crystallizing pure cane sugar (Domino cube) twice from an alcohol solution and drying the resulting crystals in vacuo at 70° C.

#### *Measurement of Solubility*

Solubility measurements were carried out as follows. A series of levulose solutions was prepared ranging in concentration from 0 to 300 g. or more of levulose in 100 g. of water. Owing to the great solubility of levulose in water, these solutions were readily formed at room temperature by mixing the requisite weighed quantities of solid levulose and water directly in the jars that were later to be immersed in the constant-temperature water bath. The solid phase (sucrose or dextrose) was added after the levulose was completely in solution. The jar lids were then clamped in position and made watertight by coating with several layers of paraffin. They were then placed in the constant temperature water bath and kept agitated continuously until equilibrium was established. The period of time required to attain equilibrium ranged from three to forty days, depending on the concentration of the levulose solutions being studied. After sufficient time had elapsed for establishment of equilibrium, the liquid phase was separated from the excess solid phase by means of a tubular glass pressure filter. A dry asbestos mat over a porous plate filtering disc served as the filtering medium.

Since only a few grams of the liquid phase were required for analysis, a relatively small part of the total sample was removed and filtered. The remainder was sealed in the jar and agitated for an additional period of time. A second sample was then removed and analyzed in order to make certain that equilibrium had been established. If the composition of the first and second filtrates differed, the operation was repeated until the liquid phase reached a constant composition. In filtering, an air pressure of approximately twenty pounds per square inch was used.

A more satisfactory method of determining the establishment of equilibrium was by successive measurements of the refractive index of the liquid phase. When a constant value was obtained, it was assumed that equilibrium had been established. Each sample of the liquid phase



obtained was checked for the possible presence of minute crystals by means of the Tyndall cone effect.

#### *Dextrose Solubilities in Levulose Solutions*

Dextrose solubility in levulose solutions in which the levulose concentrations ranged from 0 to 300 g. of levulose in 100 g. of water was determined by this method at 20°, 25°, 30°, and 52° C. In some cases values were determined for both undersaturated and supersaturated solutions. The two sets of values were in satisfactory agreement. The saturation curves for dextrose at the three lower temperatures all show that a rather abrupt increase in solubility occurs when the levulose reaches a concentration of about 150 g. of levulose in 100 g. of water. A regular decrease in solubility is observed with increasing levulose concentration in the solutions containing less than 150 g. of levulose in 100 g. of water. This decrease indicates only a slight salting out effect. The results in this lower range agree fairly well with results obtained by Jackson and Silsbee on this system at 30° C., indicating that in addition to the sharp increase in dextrose solubility observed for the higher levulose concentrations, the normal salting out effect expected in the lower ranges does not occur. After the abrupt rise, the saturation curves again flatten out, and there is evidence of a slight falling off in solubility with increasing levulose concentration, corresponding to a slight salting out effect. This decrease in solubility is very slight, however, and may not be significant. Solubility values for dextrose determined at 52° C. indicate that at this temperature levulose exerts only a comparatively slight salting out effect on dextrose. No rise in the solubility curve occurs similar to that for solubility at lower temperatures.

Additional solubility values of dextrose at fixed levulose concentrations of 100 and 200 g. per 100 g. of water respectively were determined at temperatures between 20° and 60° C. These two values represent levulose concentrations on either side of the abrupt rise in dextrose solubility obtained in previous solubility measurements. The two curves correspond closely to solubility curves for the hydrated and anhydrous forms of dextrose in pure water obtained by Jackson and Silsbee.

When solubility measurements were made on the system sucrose, levulose, and water, with sucrose as the solid phase, a pronounced salting-out effect of levulose on sucrose was shown. Saturation values for sucrose were determined at both 20° and 30° C., and in each case there was a pronounced decrease in sucrose solubility with increasing levulose concentration. For example, at 30° C. the solubility of sucrose decreased from 213.8 g. in 100 g. of water when no levulose was present to 147 g. in 100 g. of water in which 328 g. of levulose was dissolved. The solubility behavior of sucrose in the presence of levulose is similar to the



behavior of sucrose in the presence of invert sugar, which has been studied by Jackson and Silsbee.

### *Interpretation of Results*

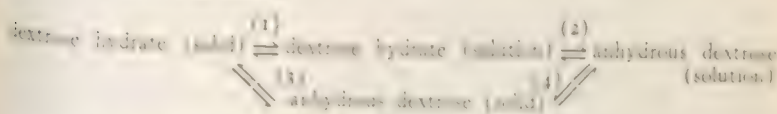
A number of possible explanations are advanced to account for the unusual solubility of dextrose in solutions containing large proportions of dissolved levulose. It is pointed out that in view of the slight salting-out effect of levulose on dextrose and the crystallization behavior of honey, an unusually high solubility for dextrose in concentrated levulose solutions should be expected. Since dextrose in solution consists of a complex mixture of isomers, any change in the proportions of the various isomeric forms in solution would produce a change in the overall solubility of the dextrose, provided the solubilities of the various isomers differed markedly. Dextrose in the free state consists almost altogether of an equilibrated mixture of the  $\alpha$  and  $\beta$  forms of the 1,5 ring structure. Each of these isomers in turn may exist as an equilibrated mixture of the hydrated and anhydrous forms. Any shift in the points of equilibrium of the mixtures would affect the overall solubility of the dextrose, since each of the forms of dextrose represented by these equilibria differ with respect to solubility.

When a concentrated solution of dextrose in levulose is diluted, a drop in the optical rotation occurs on standing. This indicates that a shift in the point of equilibrium between  $\alpha$  and  $\beta$  dextrose could not be responsible for the increased solubility of dextrose, since the proportion of  $\beta$  dextrose, the more soluble of the two isomers, apparently decreases with an increase in the concentration of levulose. This fact bears out the assumption that a shift from hydrated to anhydrous dextrose in solution is responsible for the increase in dextrose solubility.

The following evidence, gathered in the course of the solubility measurements, tends to confirm this explanation. (1) The break in the solubility curve of dextrose is sudden, and solubility values come on either the lower or upper part of the curve, indicating an abrupt change corresponding to a transition point. (2) Microscopical examination of the crystalline solid phase in the various solutions showed that below the break in the solubility curve dextrose hydrate constituted the stable solid phase, whereas for concentrations above the break anhydrous dextrose was the stable solid phase. (3) Sucrose saturation curves for the system sucrose, levulose, and water show a normal salting-out effect on sucrose by levulose, and no breaks in the saturation curves occur throughout the entire range of levulose concentrations employed. (4) The solubility curve for dextrose in the presence of levulose at 52° C. did not show a break similar to that obtained at lower temperatures. Since 50° C. is the transition point from hydrated to anhydrous dextrose, at 52° only anhydrous dextrose can exist. (5) Refractive index levulose

concentration curves for the solutions below 50° C. show sharp breaks, indicating a phase change. (6) The solubility curves for dextrose in solutions of fixed concentrations of 100 g. and 200 g. of levulose in 100 g. of water correspond closely to the solubility curves for the hydrated and anhydrous forms of dextrose in pure water determined by Jackson and Silsbee.

These facts supply conclusive evidence that the abrupt change in solubility values for dextrose in levulose solutions containing approximately 150 g. of levulose in 100 g. of water below 50° C. is due to a change of hydrated to anhydrous dextrose. The following mechanism is proposed to explain this change.



This set of equilibria may function as follows:

Throughout the lower portion of the curve only (1) and (2) function. Since no solid anhydrous dextrose is present, (3) and (4) are automatically impossible. Eventually the activity (or concentration) of water in the mixture becomes so low that the solid dextrose hydrate begins to lose water directly. This causes the appearance of solid anhydrous dextrose, and the solubility rapidly increases until equilibria (3) and (4) are in operation. At this point there are two solid phases and a liquid phase. The next increase in levulose concentration will so decrease the activity of water in (2) that this equilibrium will be drawn entirely to the anhydrous dextrose. The actual mechanism of this transfer is probably through (1), (2), and (4) because solid  $\rightleftharpoons$  solid equilibria are established very slowly, but (3) would be the control.

#### CONCLUSIONS

1. Levulose exerts only a slight salting-out effect on dextrose in aqueous solution, in contrast with its pronounced reduction in the solubility of sucrose under similar conditions.
2. A sharp increase in the solubility of dextrose occurs in aqueous solutions of dextrose and levulose at temperatures between 20° and 50° C., when the concentration of levulose reaches a value of approximately 150 g. in 100 g. of water.
3. At 52° C. the saturation curve for dextrose in the presence of levulose in aqueous solution does not show a rise similar to that obtained at lower temperatures.
4. The saturation curve for dextrose in a solution containing 100 g. of levulose in 100 g. of water between 20° and 60° C. is closely similar to the corresponding curve for hydrated dextrose in pure water, whereas

the saturation curve for dextrose in a solution containing 200 g. of levulose in 100 g. of water is similar to the corresponding curve for anhydrous dextrose in pure water.

5. The saturation curve for sucrose in the presence of levulose at 20° or 30° C. does not show a rise similar to that exhibited by dextrose under similar conditions.

6. The sudden increase in solubility of dextrose when the levulose concentration reaches a certain critical point is due to a change of hydrated to anhydrous dextrose in solution.

7. Under equilibrium conditions in aqueous solution, below levulose concentrations of about 150 g. in 100 g. of water, dextrose hydrate is the stable solid phase, whereas at higher levulose concentrations anhydrous dextrose is the stable solid phase.

8. In solubility determinations successive refractive index measurements of the liquid phases of the mixtures serve as a convenient means of determining the points of equilibrium.

9. In a dextrose levulose solution, levulose has a retarding effect on the change of anhydrous to hydrated dextrose in solution. This tendency increases with increase in levulose concentration.

10. The solubility behavior of dextrose in the presence of high levulose concentrations explains the failure of certain types of honey to crystallize and throws light on the crystallization behavior of honey in general.

SUMMARIES OF THESES SUBMITTED FOR  
THE DEGREE OF DOCTOR OF EDUCATION

1941-43





## THE IMPROVEMENT OF THE PHYSICAL EDUCATION PROGRAM IN THE COUNTY SCHOOLS OF MARYLAND

By THOMAS COOLEY FERGUSON \*

The purpose of this study is to formulate an improved plan for the development of physical education in the county schools of Maryland. Incident to this purpose, current needs and interests, as revealed by a comprehensive investigation of the status of physical education in the county schools, are examined in the light of criteria deemed basic to an adequate program.

Preliminary to the gathering of data, the cooperation of the Director of the Maryland State Department of Health and all but one of the twenty-three county superintendents of schools was secured. With the approval of the superintendent of schools, a liaison officer—usually a supervisor—was appointed in each county. These voluntary assistants directed the collection of data in their respective jurisdictions.

To obtain information relative to health a questionnaire was sent to each county health officer concerning procedures and results of health examinations. Data concerning the status of physical education in the elementary schools were obtained through questionnaires to selected principals, teachers, and pupils, supplemented by reports based upon the observation of instruction by competent persons. A somewhat similar procedure was used in connection with the secondary schools. Other data were secured from the annual reports of the State Board of Education, certification records, courses of study, bulletins, school survey reports, and numerous other sources. Much supplementary data were gathered through correspondence and interviews with superintendents, supervisors, and teachers.

In selecting a representative sample for purposes of the study, care was taken to include schools for both white and colored pupils; elementary, junior high, and senior high schools; small schools and large schools. In these schools the first, fourth, seventh, ninth, and eleventh grades were used. In these grades the first and last boy and the first and last girl on the class or school roll were chosen.

All materials provided by pupils were checked by the classroom or physical education teacher. Health examination records were checked by the county health officer. Tests were checked by the county liaison officer or the physical education teacher. Similar care was taken to check all other data.

*Historical Background.*—The program of physical education was introduced in the county schools of Maryland as athletic meets in 1914. A year later the first appropriation for further extension of physical

\* A.B. 1921, University of South Dakota; Ed.M. 1923, Harvard University; Ed.D. conferred June 11, 1927.

education to the counties was made by the State Legislature. The first special physical education teacher was appointed to serve in one of the county schools, a badge test program was introduced, and soccer was added as a seasonal sport in that year. In 1918 the Physical Education Law, under which the present program operates, was passed by the State Legislature. Dr. William Burdick became the first acting State Supervisor of Physical Education. Between 1918 and 1937 emphasis was placed upon the growth and development of an athletic program to include state-wide championships in seasonal athletics for both boys and girls. In 1937 the writer was appointed Supervisor of Physical Education and Recreation. Since this time the following changes have taken place:

1. An organized program of physical education has been promoted in the county elementary schools.
2. The athletic program has been decentralized.
3. Intramurals have been greatly extended.
4. There has been a large and rapid increase in the number of qualified physical education teachers in the secondary schools.
5. An extensive inservice teacher training program has been conducted.

*Criteria basic to an adequate program.*—For the purposes of this study physical education is defined as that part of the school's program designed to develop organic vitality as a basis for health; and to promote the growth of certain knowledges, appreciations, and skills that may be of use to the pupil. Learning activities should be selected on the basis of pupil needs and interests after an adequate appraisal of current status. The more detailed philosophical assumptions of the study are in consonance with the general purposes of education as stated in the 1941 survey of Maryland public schools.\* Criterion check lists from which activities may be chosen are taken primarily from the work of N. P. Neilson and his coworkers in *Physical Education for Elementary Schools*,† and *A Score Card for Evaluating Physical Education Programs for High School Boys (Girls)*‡.

*Findings.*—The data gathered was voluminous and much too extensive to present adequately in a summary. However, some of the more significant findings include the following:

1. Physical education was first introduced into the county schools as an athletic program for boys and girls, leading to county and state championships.
2. The badge test program now in operation has high participation but is unscientific and needs revision.

\* Maryland State School Survey Committee. *The 1941 Survey of the Maryland Public Schools and Teachers*. Baltimore: The Bureau of State Department of Education, 1941.

† N. P. Neilson and Winifred Van Hagen. *Physical Education for Elementary Schools* (New York: A. S. Barnes & Company, 1936).

‡ *A Score Card for Evaluating Physical Education Programs for High School Boys (Girls)* (Sacramento: State Department of Education, 1931).

3. The health examination of pupils is inadequate for the most part, examination in the secondary schools being almost wholly absent. The results of the examinations are not used by teachers in the adaptation of physical education activities to meet pupil needs.
4. Achievement, as measured by the standards which were used, was very low.
5. Elementary pupils prefer arithmetic to any other school subject.
6. Of the physical education activities, games, relays, and rhythms are the best liked, stunts are the most disliked activity.
7. The size of the play groups after school hours ranges from one to five persons.
8. Hiking and swimming are given little place in the present physical education program.
9. Proper play clothing is not used by most pupils during their regular physical education program.
10. There is little permanent classroom organization for physical education.
11. The amount of time devoted to physical education varies greatly within the counties.
12. The mean teaching experience of teachers in Maryland county elementary schools is 12.86 years.
13. When reported, the progress of pupils in physical education is indicated upon the report card or communicated directly to parents or pupils.
14. The inservice training of teachers needs to be expanded.
15. Only a few teachers have the American Red Cross First Aid Certificate.
16. Schools have only meager equipment and supplies.
17. A pupil leadership program is needed.
18. The number of qualified teachers of physical education in the Maryland county secondary schools has grown rapidly within the last few years.
19. Secondary school boys and girls made low scores in the achievement tests.
20. Few schools have a corrective physical education program.
21. Secondary school pupils enjoy gymnastics, marching, and calisthenics the least of all the physical education activities.
22. Twenty-six different courses in education were offered for certification credit by the eighty-five certificated teachers of physical education.
23. The teaching load for teachers of physical education is low.
24. Better methods of appraisal of teaching are needed.



25. Many schools have no provisions for regularly scheduled physical education.
26. Graduate courses in physical education which are offered by some colleges are on a level with those given to undergraduates.

**Recommendations.**—The immediate next steps that should be taken to improve the program of physical education in the county schools of Maryland, as indicated by the study, are:

1. A re study of the whole physical education program, cooperatively with the teachers, to include the formation of course-of-study groups, discussion groups, and inservice training programs, to insure a broad understanding as to the purposes and underlying philosophy of the program, ways of ascertaining pupil needs, the adaptation of activities to meet these needs, methods of procedure, and ways of evaluating teaching efficiency.
2. Conferences with the State Director of Health, the county health officers, and the county medical associations to set up a cooperative plan for an adequate health examination of all pupils who may need an examination and to make provisions for the correction of remediable defects so that pupils may take their rightful places in school and community life.
3. Improved use of present school records, including the cumulative record card, to provide one basis for the adaptation of activities.
4. Establishment of a tentative physical education program in both the elementary and secondary schools based upon materials suggested in "Physical Education for Elementary Schools" and "A Score Card for Evaluating Physical Education Programs for High School Boys (Girls)".
5. The installation of a plan for providing a minimum of apparatus and equipment to those schools in need of this material. This would include a plan for better use of present facilities.
6. Arrangements to acquaint colleges that prepare elementary school teachers and physical education teachers for secondary schools with the teacher needs of the state.

Since the improvement of the physical education program will not be realized wholly by the above mentioned immediate next steps, a long-time plan will be necessary and should consist of:

1. A course of study based upon the cooperative activities of the teachers as suggested in the immediate next steps.
2. A cooperative health service as the result of coordinated activities as enumerated under immediate next steps.
3. The gradual elimination of the present badge test program and the inclusion of a scientific self-testing program similar to that

proposed in "Achievement Scales in Physical Education Activities for Boys and Girls in Elementary and Junior High Schools".\*

4. A plan for providing equipment and supplies to all schools according to their needs. This would involve a study of the State Equalization Fund.
5. The establishment of desirable standards for the promotion, organization, and administration of a well-balanced physical education program.
6. Better supervisory service to the schools, planned so that contributions by the principals, the county supervisors, and the State supervisors may be used to best advantage for the improvement of teaching.
7. The extension of the program to include such interests as swimming, camping, hiking, recreation athletics, and wise use of leisure time.
8. Promotional programs to interpret the physical education program to pupils, teachers, and parents.
9. Leadership programs for both elementary and secondary school pupils to be developed and put into operation in each school.
10. A plan for the wider use of school and community facilities by pupils and adults after school hours.

\*N. P. Noland and Frederick W. Quinn: *Achievement Scales in Physical Education Activities for Boys and Girls in Elementary and Junior High Schools*. (New York: A. S. Barnes & Co., 1931.)

# AN EVALUATION OF THE ADEQUACY OF STATE SUPPORT OF PUBLIC EDUCATION IN PENNSYLVANIA

by GEORGE HERBERT RICHWINE •

The purposes of this study are (1) to evaluate the adequacy of state financial support of public education in Pennsylvania; and (2) to develop an improved plan of state support.

*Historical Background.*—Preliminary to the accomplishment of this purpose, the historical background of the present method of state support of public education is examined in order to show the factors which were instrumental in directing the development of the present plan.

Public funds were used for the free education of the children of the poor for many years prior to the enactment of the Free School Law of 1834, which was substantiated in 1873 by the Constitutional mandate that "the General Assembly shall provide for the maintenance and support of a thorough and efficient system of public schools". From 1834 to 1921, state support was based on various combinations of the number of pupils, teachers, taxables, and salaries. Since 1903, when the first minimum salary law was enacted, the state has been obligated to aid school districts in paying the required minimum salaries of teachers. This has strengthened state control over the qualifications and certification of teachers, and resulted in the formulation of much of the present state administrative policy concerning public education. However, the entire public school system is operated, at the present time, on the basis of the School Code of 1911. The constitutionality of this basic law has been upheld by the Supreme Court of Pennsylvania. On the basis of its interpretations, the lower courts of the Commonwealth have held consistently that the act of 1911 provided a new and complete system for the regulation and maintenance of a system of education by the public schools. The courts have held that the School Code of 1911 guarantees free and democratic education on a state-wide basis, and makes education for all children in the state a mandatory duty of the Legislature. A general system of public education by common schools is an integral part of the state governmental system of Pennsylvania. School districts are legal agents to administer the educational functions of the state and have authority to finance education, to levy taxes, and to borrow money, subject to certain limitations expressed in the school laws.

*Present Status of State Support of Public Education in Pennsylvania.* By the School Code of 1911, every city, incorporated town, borough and township, or merger, or union thereof, was constituted a school district

• P. B. 1943, Middleburg College, A. M. 1947, State College, University. L. D. 1947, Date 11, 1943.



These local school units were classified into four groups according to the population of the districts. First class districts were those with populations in excess of 500,000; those with populations of 30,000 to 500,000 were second class; 5,000 to 30,000, third class; and districts with populations less than 5,000 were fourth class. This classification of school districts constitutes one of the two bases on which most of present state support is determined; the other basis being the wealth of the district as expressed in true valuation of taxable property per teacher.

Present state support is of two kinds, regular and emergency. Regular state support is mandated in the provisions of the school laws of Pennsylvania, and should be considered as reimbursement for a part of the cost of local educational programs. Emergency state support is not considered in this light but is paid only in such manner and in such amounts as the Superintendent of Public Instruction may determine, to school districts that are so financially handicapped and distressed that the functioning of the educational system is seriously affected. Emergency state support is the result of emergency action by the Legislature and the Department of Public Instruction, since 1929, to keep schools open in certain districts until a more equitable method of distributing a more adequate amount of state support can be devised.

The present method of regular state support is determined by the Edmonds Act of 1921 and subsequent amendments. It includes partial reimbursement for the cost of vocational education, the transportation of pupils, the tuition of non-resident high school pupils, and required minimum salaries of teachers.

The largest part of regular state school support in Pennsylvania reaches local jurisdictions as reimbursement for required minimum salaries of teachers. Districts of the first, second, third, and fourth classes, if the true valuation of taxable property is over \$100,000, receive 25, 35, 35, and 50 per cent respectively of prescribed minimum salaries. Districts in which the true valuation per teacher is more than \$50,000 and not more than \$100,000, receive 60 per cent of the prescribed minimum salaries regardless of population. Districts with a true valuation per teacher of \$50,000 or less receive 75 per cent of such salaries.

The total amount of state aid for schools received by local districts in Pennsylvania in 1939-40 was \$30,110,057. Approximately 85 per cent of this was paid as reimbursement for prescribed minimum salaries. A little less than 5 per cent was paid as emergency aid and the remaining 10 per cent was distributed through special forms of regular aid.

During the past 15 years the state has gradually increased its share of the burden of public school support. At present (1939-40) a little more than 77 per cent of revenue for current school expenditures comes from local sources, and slightly more than 22 per cent comes from the state. The federal contribution amounts to only .7 per cent.



*The Inadequacy of State Support.*—In the past 12 years the state has found it necessary to provide more than \$17,000,000 of emergency aid to local districts in order to keep the schools in operation. Although there have been fluctuations in the need for such aid, the general trend indicates a steady increase in the amount of financial distress experienced by local school districts. Some of this may be attributed to inefficient local management but a large share of it is due to movements of broad scope quite beyond the jurisdiction of local districts.

In recent years there has been a steady increase in the revenue needed to maintain the schools. Enrollments have grown larger, especially on the high school level where costs are higher. An enlightened public has asked the schools to render new services and to improve the quality of the old. Commendable efforts to improve the caliber of the teaching personnel have resulted in higher salaries and more secure tenure. These and other factors have contributed to the need for more revenue.

In the face of rising costs many local jurisdictions have found their financial ability to support public education shrinking. There have been sharp decreases in the value of real property. Legal restrictions, the operation of the law of diminishing returns, and public opinion have tended to block needed increases in local tax rates. More and more local districts have resorted to deficit financing. As debts mounted the rising cost of debt service has multiplied local financial difficulties. The state has attempted to alleviate this situation by increasing both regular and emergency aid but the effort has fallen far short of the need. Between 1924 and 1939 the state increased its share of the burden of school support from 18.2 to 22.2 per cent—only 4 per cent.

In the same period annual current expenditures for public education in Pennsylvania rose from \$106,000,000 to \$150,000,000—over 40 per cent. The net result of this situation has been the reduction of more than 600 school districts to a financially handicapped and distressed status, dependent upon emergency aid for the maintenance of ordinary school services. Equally serious has been the disappearance of tax leeway in many hundreds of additional districts. Without tax leeway local initiative which has played such an important role in the development of the American public school system, is severely restricted. Clearly, present state support of public education in Pennsylvania is inadequate in amount.

*The Unequitable Distribution of Regular State Support in Terms of Local Needs.*—In many school districts a large part (over 85 per cent) of state aid received is determined by the size of the population. It has been shown that the number of people living in a school district bears little or no relation to the ability of the district to support its public schools. The two most populous school districts are far down on the

list when ranked according to financial ability to support education and many of the relatively wealthy districts have small populations.

A large share of state aid received by the less wealthy school districts is determined by the true valuation of taxable property per teacher. If accurately determined, this is a good measure of local financial ability. However, for purposes of distributing state school aid, these districts are divided into only two groups. Such coarse grouping results in many inequalities. A school district with a true valuation per teacher of \$100,000 receives 25, 35, or 50 per cent of minimum salaries paid, depending upon its population; while a district with a true valuation per teacher of \$90,000 receives from the state 60 per cent of these salaries. By no stretch of the imagination can it be argued that the financial need of the second district is 20 to 140 per cent greater than that of the first. A district with a true valuation per teacher of \$40,000 receives 75 per cent of minimum salaries paid; while one with a true valuation of \$50,000 per teacher receives only 60 per cent of such salaries. Such distribution of state aid must be inequitable. Among school districts with very low valuations of taxable property the need for state aid increases sharply as the true valuation per teacher decreases. This fact is not recognized by the present plan of distributing state aid for all school districts with true valuations per teacher of less than \$50,000 receive the same percentage of minimum salaries.

Inequalities are generated also by inaccurate determinations of the true valuation of taxable property per teacher. Local assessors are elected and often have no special qualifications for the highly technical work of assessing property. Political influences are always present. The State Council of Education, while clothed with broad authority to correct valuations as reported by school districts, possesses inadequate facilities to cope with a problem of such magnitude. It is inevitable that inequitable assessments are numerous.

Even when assessments are equitable the reported relation to true value is rarely based upon reliable data. A considerable number of school districts report assessment ratios lower than they should be. As a result they receive less state aid than they are entitled to receive. Many more districts report higher assessment ratios than really exist; thereby receiving more state aid than they should. The net result is inequitable distribution of state support.

A few districts, near the limits of state aid classifications, are able to increase their financial help from the state, inequitably, by an unwarranted increase in the number of teachers employed. By such means the true valuation per teacher may be lowered sufficiently to place the district in a classification receiving from the state a much higher percentage of minimum salaries.

It seems evident that the present method of distributing state aid in Pennsylvania is inequitable in terms of local needs.

*An Improved Plan of Distributing State Aid.*—The Edmonds Act and subsequent legislation have accomplished a great deal in the way of improved standards and increased educational opportunities. On the whole, the Legislature has given generous and faithful support to education. Were this not so the status of public education in Pennsylvania would be much lower than it is. However, with all due respect to past accomplishment, it seems evident that the present method of state support needs to be amended.

Three major changes are recommended: (1) adequate provision for a satisfactory minimum program of education for all school districts in the state, (2) the adoption of a new state salary schedule of the preparation-experience type, and (3) a new plan of salary reimbursement by the state on the basis of true valuation of taxable property per teacher.

It is urged that a flexible minimum program of education be established in accordance with current state needs and criteria generally accepted as desirable. To formulate such a program it is recommended that a thorough and adequately financed study be undertaken.

It is shown that when the present salary schedules were adopted conditions were quite different from those now existing. When the Edmonds Act was passed, nearly 30 per cent of the teachers in Pennsylvania were credited with less than two years of post high school work. At present less than 1 per cent are so classified. In 1921, it was possible to secure elementary school certification with considerably less preparation than was required for secondary school certification. Since February 1, 1939, equal preparation, at least with respect to number, length, and cost of courses, has been required for elementary and secondary school certification. In view of these and other facts concerning the salary situation, and the generally accepted advantages of the single salary scale; it is recommended that a special study be undertaken with a view to the establishment of a new state salary schedule of the preparation-experience type.

It is recommended that a large share of state aid still be distributed as reimbursement for salaries paid by local districts, but that a new method of determining the percentage of such salaries for reimbursement purposes be adopted. In this connection the classification of school districts either on the basis of population or true valuation of taxable property per teacher should be abandoned.\* A more equitable distribution

\*Under the Constitution of Pennsylvania as amended any law or action in order to be constitutional must be based on the basis of true valuation of taxable property and not on the basis of population. The present classification of school districts by population is therefore unconstitutional. The determination of the percentage of salary reimbursement.



of state aid will be achieved if the percentage of salary reimbursement is determined by an equation of the type:

$$y = ax^b + c$$

in which

$y$  = the percentage of salaries reimbursed by the state

$x$  = the true valuation of taxable property per teacher

$a$ ,  $b$ , and  $c$  are constants

The exact form of this equation will have to be determined in the light of the minimum educational program to be formulated and the new salary schedule. However, on the basis of estimated data the following equation is suggested:

$$\begin{aligned} y &= 15,000x^{-.75} + 20 \\ &= \frac{15,000}{\sqrt{x}} + 20 \end{aligned}$$

The application of this formula would result in an estimated increase in present state aid of approximately \$16,000,000 per year. This is reasonably close to an estimated \$17,000,000 needed to remove the financial handicaps of distressed districts and establish sufficient tax leeway to stimulate local initiative.

This method of determining the percentage of salaries to be reimbursed by the state removes a number of the causes of inequalities of present state support. Obviously, its value is largely dependent upon the accuracy of the true valuation of taxable property per teacher. In this connection it is recommended that the number of teachers used in the calculation be determined by the teaching units prescribed in the minimum program to be formulated, and that the present practice of counting teachers of schools now closed, be abandoned.

In order to reduce assessment inequalities it is recommended that, (1) part-time, elected assessors be replaced by full-time, appointed, properly-trained persons, (2) local assessment be made a county function performed under the supervision of a central taxing authority to be created by the state, (3) assessments be revised annually, and (4) lists of assessed values with location charts and other aids be given wide publicity.



## AN OCCUPATIONAL STUDY OF PERSONNEL WORKERS IN SELECTED AGENCIES OF THE FEDERAL GOVERNMENT

by HAROLD GLEN CLARK \*

This study of personnel workers in the Federal Government was undertaken with four purposes in mind: (1) to obtain information regarding the nature and extent of personnel work in the federal service; (2) to discover the duties, qualifications, and backgrounds of federal personnel workers; (3) to survey (a) college and university curricula designed to prepare men and women for personnel occupation, and (b) the Civil Service examinations for public personnel workers; and (4) to secure expert opinion relative to criteria and best practices in the preparation and recruitment of these workers.

The information secured was for the guidance of prospective personnel workers and those who train, counsel, and recruit these workers for the public service. The study was confined to the formal personnel program usually attached to the chief administrative office in the executive departments, agencies, and bureaus of the Federal Government. A personnel worker was defined as one who engages in such a program.

The importance of the investigation arises in the strategic relationship of the personnel program to successful public administration and the lack of occupational information regarding personnel workers and the work they perform.

The information secured from the first phase of this study revealed that there were over 9,000 personnel workers in 39 departments, agencies and bureaus of the Federal Government in 1940. These workers served over 1,000,000 employees in the United States Government.

Personnel workers were functionally classified into two main categories: regular operating functions, in which the worker performed recording, filing, statistical, and other clerical and routine activities, and the specialized, technical, and staff functions which included classification, recruitment, training, employee relations, and safety and health. The regular operating functions made up over two thirds of the personnel work performed. Personnel work was classified as to location in central, bureau or divisional, or field offices and elsewhere in the organization. The largest percentage of the personnel work was performed in the bureau or divisional, and the field offices.

The newer concepts of personnel work continued the record-keeping, legalistic phases which dominated earlier concepts, but emphasized a positive and well-rounded program which was concerned with all of the conditions contributing to the job situation.

\*B.S. 1928, Brigham Young University; M.S. 1934, University of Southern California; Ed D conferred February 22, 1942

In pursuance of the second phase of the study 500 questionnaires were directed to specialized, technical, and staff personnel workers in 19 representative personnel offices in the Federal Government. Three hundred and five specialized personnel workers, or 57 per cent of all who might have responded from 19 personnel offices, returned questionnaires. The percentage of returns from all but 2 offices averaged 80 per cent.

Items included in the investigation were: (1) an analysis of the functions of 19 personnel offices involving 305 public personnel workers, (2) methods of securing first public personnel positions, (3) duties of personnel workers, (4) experience qualifications of federal personnel workers, and (5) the formal preparation of federal personnel workers.

Nineteen federal personnel offices contained 1,439 workers and the size of these offices ranged from 5 to 253 personnel workers. A wide variety of sections and units, and the titles given these sections and units was found in these offices; however, the following designations appeared to be common to most personnel offices: administration, classification, organization and management analysis, employment, training, employee relations, and investigations. All offices reported some section devoted to the employment and recruitment processes.

Specialized personnel workers were generally younger than other comparable groups in the Federal Government. The median age reported for 305 workers was 32.2 years.

Approximately one fourth of the 305 workers were women, who generally held less responsible positions than the men.

A majority of the specialized, technical, and staff workers had a Civil Service classified grade of CAF-6 or above. Over 50 per cent of the 1,439 workers in 19 personnel offices were in the lower grades, CAF-1, CAF-2, and CAF-3.

The specialized personnel workers received a median salary of \$2,763.65 which compared favorably with government workers doing similar work.

There appeared to be some uniformity in working titles reported by 305 personnel workers, but there was no consistent adherence to a definite pattern. The most frequent designation was Junior Personnel Assistant.

First employment in public personnel was secured through Civil Service examination by 35.2 per cent of the 305 workers. Thirty-six and five-tenths per cent secured their first positions in public personnel work through transfer or promotion, and 28.3 per cent secured their positions through other methods.

Junior Professional Assistant and related Civil Service registers appeared frequently as a means of securing positions in public personnel work through the Civil Service procedure.

Over one third of 267 personnel workers reporting date of entry came

into their first personnel work in 1939 or later, while over 80 per cent entered personnel work in 1933 or later.

The average salary increase each year as recorded by 222 workers during the total years of their service in public personnel work was \$262.50.

The size of the personnel agency, its location in the central bureau or field office, and the character of its assignment appeared to determine the duties of 305 specialized, technical, and staff personnel workers in 19 personnel offices of the Federal Government.

A more intensive analysis of the personnel duties of 269 workers, under 19 categories revealed that 110 reported an average of 19.17 per cent of their time spent in classification and 121 reported 12.69 per cent of their time spent in recruitment.

After careful analysis of the titles and duties of 305 personnel workers 20.3 per cent were classified as administrators; 20.3 per cent as classification workers; 12.8 per cent as employment and recruitment workers; and 16.7 per cent as placement, examination workers. The smallest percentage recorded was 2.3 per cent for health and safety workers.

Forty one and three-tenths per cent of 305 personnel workers, or 126 personnel workers reported a median of 4.8 years of personnel work experience acquired previous to their present jobs.

Three hundred and five personnel workers averaged 6.3 years of total personnel work experience acquired before or after their first public personnel positions. Seventy per cent of this work was public personnel experience and 13.9 per cent was in industry.

An average of approximately 8 years of non-personnel work experience was reported by 269 workers. Out of 272 persons reporting their most extensive non-personnel work experience, 40 reported education and teaching and 67 workers reported secretarial, stenographic, or clerical work experience.

Sixty-nine and two-tenths per cent of 289 workers reporting some type of formal education had college degrees and most frequently the Bachelor of Arts degree. Eighty per cent of 305 personnel workers entering public personnel work in the period from 1939 to 1941 inclusive had college degrees.

The median salary for those with college degrees was generally higher than the median salary of non-college workers. The average salary increase for each year of service in public personnel work was \$149.50 for high school graduates; \$325.10 for those with college degrees, and \$349.50 for those with more advanced degrees.

College courses in personnel administration and public administration were ranked most useful by a larger per cent of those indicating an opinion of the courses they had studied.



One hundred and eighty-two personnel workers reported a wide distribution of institutions from which they had received their highest degrees. The George Washington University and the University of Chicago lead all institutions, with 18 and 14 graduates respectively.

Political science and public administration predominated as the undergraduate and graduate majors respectively of 200 personnel workers.

The third phase of this study dealt with (1) the educational training programs designed to prepare personnel workers for the public service and (2) Civil Service examinations for personnel workers.

A questionnaire directed to 73 institutions reported as offering special curricula in public administration brought responses from 65 of these institutions. The following information was secured:

Eighteen reported special curricula specifically designed to prepare for public personnel administration. Most of these courses had been organized since 1935. The highest degree in these special curricula offered by six of the institutions was the Master's degree. Four of these 18 institutions appeared to offer especially strong concentrations in public personnel administration. Only one offered a Master's degree in public personnel administration. Public personnel curricula were usually offered in a special school of public affairs or public administration, as a major in the Liberal Arts college, or as an interdepartmental arrangement of the social sciences and the school of business.

An effort to coordinate the fields of psychology, education, business administration, economics, political science, engineering, statistics, and related fields, to build a public personnel curriculum was seen in the training programs of several institutions. Most universities approached the training of personnel workers through "related curricula". These were defined as courses which provided some training for public personnel administration but which were usually offered as part of a major or curriculum in a different or related field. Forty-four of the 65 institutions stated that they offered such training. Public administration appeared most often as the subject offered in public or personnel administration curricula. The Bachelor of Arts and the Bachelor of Science degrees were reported most frequently as the highest degrees offered in these related curricula. The college of Liberal Arts and the special school of public affairs and administration were reported as the schools sponsoring these curricula in approximately half of the institutions reporting.

Twelve of the 65 institutions reported a special post-entry or in-service curriculum for public personnel workers. Five of these curricula were located in the special school of public affairs and administration. Six of the twelve institutions offered the Master of Arts degree in public administration in this special post-entry curriculum.



Colleges and universities were generally prepared to train for public administration rather than for the more specialized and technical phases of public personnel work. Apparently there were many institutions with courses which might come within the framework of a curriculum in personnel administration.

Those under 35 years of age and contemplating a career in the public service through taking a Civil Service examination may expect an entrance salary of \$2,000 or less, with no experience requirements. Preparation in the social sciences is prerequisite. A general mental test and a written test emphasizing public administration are usually administered to applicants.

Those who have had responsible work experience in public or private personnel functions of from 2 to 7 years, may find opportunities through Civil Service examinations with a beginning salary ranging from \$2,000 up to \$5,600 a year. The age limit is 53 years and the examination may be assembled or unassembled.

It seems certain that new examinations stressing training, occupational analysis, testing, and other specialized fields will appear more frequently as the scope of personnel work expands in the departments and in the field. Present examinations point toward the establishment of a career service in public personnel administration.

The final phase of the investigation was concerned with obtaining a composite opinion of experts on the training, preparation, and selection of public personnel workers. A questionnaire was directed to 75 individuals employed as directors and staff workers, college or university professors or consultants, writers or special workers in the field of public and personnel administration. Sixty-five of the 75 experts returned this questionnaire.

Certain personal traits were considered important in the preparation and selection of public personnel workers. "An understanding of people", "fairness", "sincerity", and "good judgment and common sense" were rated essential and the most valuable of nineteen personal traits submitted to these experts. A "dominant personality" was considered of little importance. A "high degree of intelligence" generally thought of as important was ranked twelfth in importance by 65 experts.

College courses in personnel administration, English, organization and management techniques, and public administration were considered most valuable courses and essential as preparation for public personnel workers. Courses in biology, shorthand, typing, and procurement and supply were ranked in the order presented, as of little importance.

Graduation based on curricula in personnel or public administration was considered more desirable than graduation based on other curricula or schools. Graduation from a college of law was considered by a majority as being of little importance.

Personnel administration was the most highly recommended subject in general preparation for public personnel work, and personnel and public administration, general psychology, labor relations, law and statistics were recommended in preparation for the specialized fields of personnel work.

The higher degrees were not considered important in preparation for public personnel administration, but college graduation or the equivalent was appraised essential.

Breadth of viewpoint and knowledge, and skill in the use of source materials were considered chief contributions of college trained personnel workers; while impractical preparation and viewpoint, and impatience with slow progress were considered their main deficiencies.

Competitive Civil Service examinations for junior personnel workers were generally approved. Approximately half the experts were not sure that the test should be primarily a written competitive test of mental ability. Very few favored work experience requirements. A majority favored supplementing the written test with ratings on other items, the written portion being weighted 60 per cent.

Half of the experts answering the question on desirable types of non-personnel work experience suggested vocational education, teaching, and research as important.

A majority favored the plan of recruiting junior personnel workers through an examination covering the broad field of public and personnel administration; however, the use of the probationary period as a weeding out process and an opportunity for in-service training were also stressed by a majority of the experts.

It is evident from this study that specialized, technical, and staff personnel work is a new and expanding field—an emerging profession for which an increasing number of colleges and universities offer special training. The inauguration of these training programs and the appearance of Civil Service examinations stressing the specialized as well as the general phases of personnel work presage the establishment of a career service in public personnel administration.

## THE HISTORY OF SPECIAL EDUCATION FOR PHYSICALLY HANDICAPPED CHILDREN ON THE ATLANTIC SEABOARD

by HENRIETTA GOLDSMITH KORNITZER \*

The purpose of this study is to investigate the history of the education of the physically handicapped through an analysis of the source material to be found in official reports of state and city superintendents of public instruction. The specific state and city systems selected were the sixteen Atlantic seaboard states and the forty largest cities located in these states. More particularly, the study is concerned with the following: (1) the influence of special education in Europe upon early American schools for the physically handicapped; (2) state provisions for the blind and the deaf; (3) city provisions for the blind, the partially-seeing, the deaf, and the hard of hearing; (4) city and state provisions for the crippled; and (5) trends with respect to educational provisions for the physically handicapped.

In addition to state and city reports, correspondence with city superintendents provided considerable information. Other data were secured through publications of the United States Office of Education and from specialists in the education of the physically handicapped.

### THE BLIND AND THE PARTIALLY-SEEING

Early facilities for the education of the physically handicapped in this country were patterned after those provided for similar groups in Europe. American pioneers in the early years of the nineteenth century visited well established European schools and returned with ideas, some of which found their way into practice. For instance, the method of offering educational provisions through the residential school was adopted by early educators in this country.

The residential school was the first type of institution for the blind provided by the state. It was a twenty four hour institution offering domiciliary and educational facilities to the visually handicapped. In its early days the same residential school often made provisions for the deaf as well.

The residential school was frequently a private school started through philanthropic endeavor. Children residing within the state in which the school was located were admitted as wards of the state or as private pupils. In many instances, neighboring states would send their physically handicapped children to this school, remunerating the school for service rendered. This procedure tended to accelerate the growth of a few early institutions.

\* A.B. 1932, A.M. 1939, The George Washington University; Ed.D. conferred February 21, 1942



State aid for private residential schools in this country is almost as old as special education itself. The state, partially subsidizing the private residential school, also assumed partial administrative responsibility. This semi-state-controlled residential school was neither a purely private school like Perkins Institution of Boston nor was it a wholly public state residential school like the New York Institute of New York.

Early residential schools excluded the young blind child. The refusal was based upon the assumption that the young blind child was non-educable. Not until the latter half of the nineteenth century did residential schools accept young blind children.

Increased emphasis was placed upon the educational program of these institutions during the second decade of the nineteenth century. With increased emphasis upon the educational program many schools selected new titles indicative of their newly-developed educational nature.

The residential school was founded primarily for the more seriously physically handicapped. By the beginning of the twentieth century this type of school was well established in the eastern seaboard states.

References to educational provisions for the blind were first made by the state of Massachusetts in 1844 and later by other Atlantic seaboard states with the exception of Connecticut, Delaware, Maine, New Hampshire, and Vermont. Provisions for the education of the blind were first made by states of the North Atlantic seaboard, later by states of the Central Atlantic seaboard, and last by states of the South Atlantic seaboard. The geographical trend of these provisions was decidedly from north to south.

The first decade of the twentieth century marked the rise of day school classes for the visually handicapped. These classes were primarily for the partially seeing and were frequently housed in a centrally located building. Unlike the residential school, these classes were supported wholly at public expense.

City day school classes were the first to make provision for ability grouping of handicapped children. Such classification was made possible by the large enrollments of these schools.

Day classes for the totally blind were established later and for many years were fewer in number than those for the partially-seeing. It was common practice to keep class size small when teaching the totally blind.

Day school facilities for the partially seeing were first offered by the city of Boston, Massachusetts, in 1913; and later made available by cities of Connecticut, Maryland, New Jersey, New York, Pennsylvania, and Rhode Island, and by the District of Columbia. Only cities in states of the North Atlantic seaboard referred in their reports to classes for the partially seeing. Cities located in states of the South Atlantic seaboard, to date (February 1941), offered no educational facilities whatsoever to the visually handicapped.



## THE DEAF AND THE HARD-OF-HEARING

State provisions for the deaf, as for the blind, were first offered through residential schools. For the majority of eastern seaboard states one finds reference, in state reports, to educational facilities for the deaf later than those for the blind. However, the chronological difference was usually slight.

In general, the history of special education for the deaf is similar to that for the blind, although it does differ in one respect. In the history of the deaf a controversy has existed over the systems of instruction to be used. References to the oral method versus the manual method appeared in superintendents' reports in this country as early as 1867 and have reappeared at varying intervals. In ensuing years the privilege was granted to the individual and to the state to select the method of instruction to be used with the child.

The state reports of Connecticut, New York, and Rhode Island referred to the oral system of instruction. Massachusetts and New York evidently used the combined system. Connecticut, Massachusetts, New Jersey, and New York, as a rule, only referred to the manual system. The states of Delaware, Florida, Georgia, Maine, Maryland, New Hampshire, North Carolina, South Carolina, Pennsylvania, Vermont, and Virginia did not specify the system of instruction used with the acoustically handicapped.

Residential schools in the latter half of the nineteenth century took definite steps to eliminate the words "dumb" and "mute" from the title of the institution. This was done in order to eliminate the stigma frequently associated with institutions for the physically handicapped. These same schools placed increased emphasis upon the educational program of the school.

The first reference to state provisions for the deaf was made by Massachusetts in 1874 and later by other Atlantic seaboard states with the exception of Delaware, New Hampshire, and Vermont. The geographical trend was again decidedly from north to south.

City day school classes for the acoustically handicapped were primarily founded for the totally deaf. Later the hard-of-hearing were admitted to these classes. In this respect, they differed from the city school provisions for the visually handicapped as these were primarily founded for the partially-seeing and later admitted the blind.

Day school classes for the deaf made provisions at an early date for the training of kindergarten and pre-school children. These provisions appeared at an earlier date than similar provisions for the partially-seeing. Itinerant teachers of lip-reading for the deaf and hard-of-hearing were first offered by Newark, New Jersey, in 1911, and later provided by cities in the States of Connecticut, Maryland, New Jersey, New York,

Pennsylvania, and Virginia, and by the District of Columbia. No city in the South Atlantic seaboard states of Florida, Georgia, North Carolina, or South Carolina made any reference to day school classes for this group.

### THE CRIPPLED

Educational facilities for the crippled in this country were first made available by city school systems. In this respect, the education of the crippled differed from that of the blind and the deaf in that the latter two groups were furnished their first educational opportunities by the state in residential schools. The education of the crippled also differed from that of the blind and the deaf in that the former received practically no educational consideration before 1914.

The location of the crippled child always has been a major problem confronting educators of the crippled. Parents of crippled children frequently seclude them and even when they are discovered refuse to permit them to be educated.

The first reference to day school classes for the crippled appeared in the superintendent's report of the city of New York in 1874. Later attention was called to similar classes by cities in the states of Maryland, Massachusetts, New York, and New Jersey.

State provisions for the crippled were first offered by early hospital schools. Instruction was given in these hospital schools to individual children but was not under the auspices of either city or state boards of education. In recent years, however, several states have provided various types of special facilities, namely: special classes, hospital schools, and home teaching.

### CURRENT PROVISIONS FOR SPECIAL EDUCATION

By the third decade of this present century several colleges were offering courses in special education for teachers wishing to specialize in the training of the physically handicapped. Similarly, attention was given to the creation of a department of special education in states and cities to organize and supervise the work of the physically handicapped.

City day school classes are now caring for the less seriously handicapped while the state residential schools still provide for the more seriously handicapped. The city day school cares for the child a part of each day, while the residential school operates on a twenty-four-hour basis. The former are primarily under local jurisdiction while the latter are usually under state supervision. The city day class allows the child to associate with normal children while the residential school places him among similarly handicapped associates. Both types of schools in recent years have come to function more and more as an intrinsic part of the public school system.

## A DETERMINATION OF PUPIL SHORTAGES IN SCIENCE, MATHEMATICS, AND ENGLISH AS FACTORS IN THE IMPROVEMENT OF THE SECONDARY SCHOOL CURRICULUM

by CHARLES EDWARD BISH\*

For several years the entire teaching personnel of the public schools in the District of Columbia has been engaged in a program of curriculum revision. A philosophy of education has been agreed upon and guiding principles have been tentatively proposed for the implementation of this philosophy. Unifying the educational program, improving the articulation of curricular offerings, and providing course of study materials more consistent with pupil needs are next steps in this program. At this point then, it was believed there was a need for data pertaining to pupil achievement in those areas of subject matter in which courses of study were to be prepared. The present study was intended to meet this need in part.

In this connection, it has been stated that pupils come into the senior high school with important shortages in fundamental concepts—particularly in science, mathematics, and English. Such shortages, if identified and validated, should have significant implications for the program of curriculum revision in the District of Columbia.

### PURPOSE

The primary purpose of the present study was to investigate such shortages, to provide means for improving the articulation of the junior-senior high school course of study materials, and to secure data which might serve as a basis for providing such additional learning experiences in the senior high school program as might be indicated by the needs of the pupils as revealed. There were then, three interrelated aspects of the investigation, (1) discovering valid educational shortages in order to revise existing teaching materials, (2) determining, where possible, what pupils are in most need of modified training, and (3) pointing out from these data implications for action.

The term "shortage" as here used, means a significant deficiency in pupil achievement with respect to a specific skill or area of information. A deficiency in pupil achievement has been arbitrarily considered as significant when a minimum 25 per cent of the pupil population studied either indicates an inability to deal with a particular skill or shows no evidence of familiarity with a given area of information.

\* A.B. 1925, Western Maryland College; LL.B. 1931, National University at Law, A.M. 1937, The George Washington University; Ed.D. conferred June 1, 1942.



## PROCEDURE

In discovering and identifying skill and informational shortages various standardized tests were used. The selection of these tests was based on the following criteria:

1. The tests should be valid (1) as measures of skill and informational outcomes consistent with the philosophy recently adopted by the Public School System of the District of Columbia and with the tentative principles proposed for implementing the philosophy, and (2) as measures of acknowledged good practice in the areas of learning in which they are used.
2. The reliability of the tests should be relatively high.
3. Norms for a sufficient range of grades to cover probable pupil shortages in achievement should be available.
4. The tests should contain a minimum number of "top" items or items beyond the ordinary range of the pupils tested.
5. The tests should be "power tests" and should therefore provide a generous working time.

The tests were selected particularly with reference to the thoroughness of the research procedures followed in their preparation. The appropriateness of the test items with regard to the educational philosophy and guiding principles for course of study construction in the public schools of the District of Columbia was reviewed. As a result the following tests were selected:

1. For the measurement of skills in English
  - (a) Reading Comprehension  
The Shank Tests of Reading Comprehension \*
  - (b) Word Meaning  
The Stanford Achievement Test, Advanced Battery, 1940 Revision, subtest 2 †
  - (c) Functional Grammar  
The Pribble McCrory Diagnostic Tests in Practical English Grammar ‡
  - (d) Spelling  
The Stanford Achievement Test, Advanced Battery, 1940 Revision, subtest 10 §
2. For the measurement of skills in arithmetic
  - (a) Arithmetic Reasoning  
The Stanford Achievement Test, Advanced Battery, 1940 Revision, subtest 4

\* Shank, Frank. *The Shank Tests of Reading Comprehension*. (Unpublished.) C. A. Greenleaf Co., 1939.

† Thorndike, L., Kelly, G. M., Ruch, and Lewis, M. Thorndike. *The Stanford Achievement Test*, 1940, rev. ed., Advanced Battery, Form D for Grades 7, 8, and 9. (Yonkers-on-Hudson: World Book Co., 1941).

‡ Pribble, L., Pribble, and John R. McCrory. *The Pribble McCrory Diagnostic Tests in Practical English Grammar for High School and College*. (New York: Lyons and Carnahan, 1928).

§ Kelly, Ruch, and Thorndike, op. cit.



**(b) Arithmetic Computation**

The Stanford Achievement Test, Advanced Battery, 1940  
Revision, subtest 5

**1. For the measurement of information in general science**

(a) The Stanford Achievement Test, Advanced Battery, 1940  
Revision, subtest 9

These tests were administered to approximately 260 pupils in grade 10A in the Roosevelt High School in October, 1940.

In the interpretation of test results, a comparison of central tendencies with standardized norms was deemed to be of less importance than item analysis. The ability of pupils to deal with each item of the tests was considered and the skills or areas of information which the test items were designed to test were examined. By these means, a list of shortages was established in each of the three fields—English, science, and mathematics.

The shortages of pupils within decile I. Q. ranges were studied. Causal relationships to previous work done in the field were examined, and implications for the improvement of teaching material on the senior high school level were observed. From these data suggestions were made concerning such action as might facilitate improvement in the teaching and reteaching of fundamental concepts.

**FINDINGS*****Science***

Informational shortages were found in connection with sixteen items in general science. These were largely grouped in four areas—plants, animals, human anatomy, and physics. This lack of information was not confined to pupils of low intelligence, although, as one would expect, such pupils did less well than those of higher intelligence. Nor were these shortages significantly related to the number of semesters of science previously elected, when intelligence was held as a constant factor. The population showed a wide variation in the amount of science previously studied as well as the grade level on which it was studied in the junior high school. Although a sequence of three semesters of science is offered in grades 7A, 7B, and 8B, only 43 per cent of the entering 10A pupils had had this particular program. Some pupils had studied no science. One might have expected to find a predominant number of shortages among those who had spent less than the usual time in previous study. This was not found to be the case.

An examination was made of the course of study and text material, particularly with reference to the areas in which shortages were discovered. This teaching material was found to be heavily weighted with respect to physics. There was considerably less material dealing with

biology, especially in the areas of plants, animals, and human anatomy, and practically none dealing with chemistry.

### *Mathematics*

Shortages were found in connection with thirty one skills in arithmetic fundamentals. Approximately two thirds of these shortages involved problem solving skills. About one third of them dealt with arithmetical concepts usually taught in grades 4, 5, and 6.

Substantially one half of all shortages involved the use of fractions or a phase of percentage calculations. Other important shortages involved skills in dealing with decimals, denominate numbers, area problems, and operations containing positive and negative numbers. The lack of ability on the part of pupils to deal with skills was not confined to pupils of low intelligence, although such pupils as a group did not do so well as those of higher intelligence. For example, it was found that among pupils of average intelligence (I. Q. range 100-110), 68.7 per cent made some type of error involving the use of fractions, 70.3 per cent made errors involving denominate numbers, and 90.6 per cent made errors in which a percentage operation was involved.

When the scores of pupils in the same I. Q. decile range were compared, a significantly higher percentage of pupils electing commercial arithmetic scored above their grade norm in both problem solving and computation than pupils electing algebra.

Shortages in mathematics cannot be attributed to failure of junior high school course of study materials to include the skills tested. Virtually all these skills were taught either in 7th or 8th grade arithmetic or 9th grade commercial arithmetic. However, pupils with deficiencies in fundamental skills, who elected algebra in grades 9 or 10, or plane geometry in grade 10 were provided with very few opportunities to improve these skills by the course of study materials in these subjects. Significantly about one fourth of the pupils who scored below their grade norm, when tested at the beginning of the 10th grade, discontinued further study of mathematics.

### *English*

In the field of English, investigations were conducted in the areas of reading (including a test of word meaning as a factor in reading comprehension), grammar, and spelling.

As a group, pupils were found to read comparatively well—approximately 70 per cent of all pupils scoring above their grade norm. An item analysis of the several skills involved in reading comprehension disclosed one outstanding deficiency involving from 40 to 65 per cent of all pupils within each decile I. Q. range, namely, the identification, within the context, of synonyms for specifically selected words. It was apparent that pupils were less able to comprehend the exact meaning which the

author intended to give words in their contextual setting than to understand the general meaning of words. Pupils were found to show no significant shortage with respect to vocabulary as such. About 12 per cent of the pupils of average or above average general intelligence were found to read at a level below their grade norm. From the results obtained from two experimental classes in remedial reading, it was found that, with few exceptions, substantial improvement in reading on the senior high school level is possible for pupils having intelligence quotients not lower than 90.

In the area of grammar, shortages were found in connection with 45 items. The validity of some of these shortages might be questioned, but little doubt can be entertained concerning at least 33 of them. Shortages were largely grouped in the sub-areas of nouns (forming the plural and the possessive), of verbs (forming the past tense of drink, dive, and run, and the agreement of verb and subject), and of adjectives and adverbs, particularly the correct use of bad and badly. Pupils did well in the sub-areas pertaining to redundancy and especially well in sentence recognition.

In the area of spelling, 20 of the 50 words in the test were missed by over 25 per cent of all pupils. It was found that pupils as a group did less well in this area than in any other investigated.

In general the distribution of deficiencies in English corresponded more closely to the distribution of intelligence quotients than did those in science and mathematics. With few exceptions in each decile I. Q. range achievement in word meaning and reading comprehension was the most satisfactory while achievement in grammar and spelling was least satisfactory.

#### RECOMMENDATIONS

##### *Science*

In the field of science those concerned with curriculum revision might well consider the desirability of providing all pupils on the junior high school level with a more definitely sequential program. At the present time approximately as many pupils receive less than three semesters of science training as receive more.

Provision should be made for all pupils to take a minimum of three semesters of science, on the junior high school level. The present study indicates that for all but the brightest pupils, additional training in general science is desirable. The possibility of offering Senior Science (general science on the 10th grade maturity level) in grades 10A and 10B should be studied. This course should be provided for all pupils except those taking five semesters of science in the junior high school and those who have given satisfactory evidence of an adequate knowledge and understanding of the essentials of the general science program. Biology,



chemistry, or physics should then be offered as electives in the 11th and 12th grades.

The content of the course of study material in general science might well be examined with a view to placing greater emphasis on the areas pertaining to plants and animals. Here, there is an apparent need for improved articulation with the science program on the elementary school level, a program in which the emphasis has recently changed from nature study to pupil activities. However, until an extensively revised program is available, it would appear that, where possible, all entering senior high school pupils should be enrolled in biology.

The emphasis now placed upon physics in junior high school science should be studied. Notwithstanding the fact that the present course is heavily weighted with physics materials, the findings of the present study indicate some significant shortages in this area.

#### *Mathematics*

The data of the present study indicate the need of providing pupils with opportunities for the relearning of essential skills in arithmetic in the appropriate grades of the secondary schools. This does not necessarily mean the establishment of special courses. Opportunities to relearn the essential arithmetic skills may be provided in algebra and plane geometry courses. Such opportunities may also be provided in a variety of other subjects. In this connection attention is called particularly to the possibility of reviewing essential skills in Business Education subjects.

It is recommended that at the end of grade 8B, mastery of essential skills in arithmetic should determine the mathematics course open to 9th grade pupils. Those pupils who show proficiency in arithmetic skills might well be offered algebra in grade 9A and for the most part be continued in the mathematics courses in the senior high school. All other pupils should, it would appear, be enrolled in a course of practical arithmetic. After grade 9B, all pupils taking 9th grade arithmetic except those substantially below average intelligence should take elementary algebra or an equivalent course in general mathematics. A further one semester course in the practical applications of commercial arithmetic appears desirable as a final course for the slow pupils.

At the end of grade 10B, pupils who are probable candidates for admission to college should be enrolled in plane geometry and for the most part be continued in the mathematics courses offered in the senior high school. Pupils other than candidates for admission to college with average or above intelligence, it is suggested, be enrolled in a socialized or general mathematics course to complete their training in this field.

It is evident from the results of this study that it cannot be assumed that all pupils have an adequate working knowledge of mathematics at



any particular grade level. If improvement in the facility to deal with fundamental skills in mathematics is to be expected the schools must be prepared to provide adequate opportunities for review and reteaching on all grade levels.

### *English*

Remedial reading should be provided for substantially all entering senior high school pupils whose intelligence is average or above and whose reading level is below their grade norm.

In grammar, more emphasis should be placed on the teaching of the correct usage of verbs and the forming of the plural and possessive of nouns.

In spelling the list of words missed by 25 or more per cent of all pupils should be intensively taught and this list revised in the light of additional tests. Spelling on the senior high school level should be the particular concern, in addition to English teachers, of teachers of secretarial training.

### CONCLUDING STATEMENT

This study has shown that pupils do come into the senior high school with significant shortages in fundamentals at least in the fields of science, mathematics, and English. These deficiencies exist to some extent among pupils in all decile I. Q. ranges. The remedy, in part, appears to lie in more effective sequential arrangement of subject matter, with the improved articulation that it would provide, and in improved guidance procedures.

## THE NATIONAL EDUCATION ASSOCIATION, 1892-1942

by MILDRED SANDISON FENNER \*

On August 26, 1857, forty-three educators gathered in Philadelphia in response to a "call" signed by the presidents of ten state teachers associations and founded the National Teachers' Association. From the time of its reorganization in 1870 on a departmental basis until its incorporation by Congress in 1906, the organization was known as the National Educational Association.

By 1892, the year with which this study begins, the Association had come to have a membership of 3,360 and, since an epochal meeting at Madison, Wisconsin, in 1884, had attracted nationwide representation at its annual conventions. Holding these conventions and publishing *Proceedings* thereof had been virtually the only activities of the organization.

The year 1892 marked a milestone in the history of the Association and of the profession, for it was at this time that the NEA entered the field of investigation and research, with the appointment of the Committee of Ten on Secondary Education. This Committee, appointed by the Association's National Council on Education, and headed by Charles W. Eliot, published in 1893 its report, called at the time "the most important educational document ever published in this country." This report began the freeing of the high school from college domination.

In the years following, other reports also had a wide influence, notably those of the Committee of Fifteen (William H. Maxwell, chairman), which dealt with teacher training, correlation of studies in elementary education, and organization of city school systems; the Committee of Twelve on Rural Schools (Henry Sabin, chairman); the Committee on College Entrance Requirements (A. F. Nightingale, chairman); the Committees on Economy of Time in Education (James H. Baker and H. B. Wilson, chairmen).

School curricula and standards felt the impact of these reports. There was, for the most part, satisfaction with the work which the Association was achieving along the line of investigation and research. But beginning in 1890, the belief had slowly but steadily grown that the contribution of the association could be even greater if teachers and women were given a share in activities of the NEA.

Teachers belonged to the Association but did not participate in its management and projects. Women teachers, denied the privilege of membership for the first nine years of the National Teachers' Association, had—even after gaining the right to belong—never been elected to

\* Ph.D. 1934, Northwest Missouri State Teachers College, A.M. 1935, The George Washington University, Ed.D. conferred June 3, 1942.

a major office or allowed to take an active part in Association affairs. That this was as it should be was the conviction of conservatives who felt that the organization could render greatest service to the profession if the college and university presidents and city and state superintendents—William T. Harris, Nicholas Murray Butler, Nathan Schaeffer, James M. Greenwood, Albert G. Lane, James H. Canfield, and others of the most distinguished educators of the day—continued to hold offices, form policies, and guide activities, with the classroom teacher a follower and not an active participant.

In sympathy with this viewpoint of what came to be called the "old guard" was Irwin Shepard, secretary of the Association, and former president of the State Normal School at Winona, Minnesota. Dr. Shepard, who had served as part-time secretary since 1893, became the NEA's first permanent secretary when that office was created in 1898, on a fulltime, salaried basis. Maintaining headquarters at his home in Winona, Minnesota, Dr. Shepard gave loyal and efficient service as secretary.

Secretary Shepard and the other NEA leaders viewed with genuine concern for the welfare of the Association the attempts to democratize it. However, at the Milwaukee convention of 1897, members gained a share in the selection of members for the nominating committee, which had hitherto been solely the President's privilege and which, said those *not* in control, had been the instrument for perpetuation of a ruling clique. Evidences of an insurgent viewpoint appeared at intervals from that time on, with Margaret Haley of the Chicago Teachers Federation a leader in the effort to win recognition for classroom teachers and women.

At the Boston meeting of 1910, this struggle reached its climax when for the first time the report of the nominating committee was rejected and a candidate nominated from the floor elected president. The candidate was Ella Flagg Young, Superintendent of Schools in Chicago, whose election as first woman president was a defeat of the "old guard".

Nevertheless, some of these former leaders supported the new administration and took part in the Association as always. Others, not in accord with the philosophy of teacher participation, withdrew, depriving the Association of some of its previous contacts with representatives of higher education. Secretary Shepard, an "old guardist" at heart but a gentleman of courtesy and tact, cooperated with the new leaders until his resignation because of ill health in 1912. His successor was Durand W. Springer, principal of the Ann Arbor (Michigan) high school, who also shared the beliefs of the "old guard".

At the Portland convention of 1917, Mr. Springer resigned. The Board of Trustees elected J. W. Crabtree, president of the State Teachers College at River Falls, Wisconsin, as the new secretary and by this action wrote the introduction to a new chapter in NEA history.



Believing that a greatly enlarged membership would enable the Association to increase its service, Secretary Crabtree immediately started a membership campaign. Secretary Shepard, feeling that the best interests of the profession called for a small nucleus of active members and a larger representation of associate members, had not vigorously solicited active members. An associate membership, created in 1895, had been composed largely of teachers in the convention state who joined for one year only or laymen with little interest in the profession who, through an arrangement between the Association and the railroads, took out membership to secure reduced railroad rates. During Dr. Shepard's term of office, active membership increased from 3,360 to 7,865, with the associate membership sometimes reaching as high as 30,000. Under Secretary Springer the status of membership did not appreciably change.

Dr. Crabtree, however, working toward the goal of "one hundred percent membership in local, state, and national organization, with every teacher at work on the problems of the profession", raised the active membership from fewer than 8,000 in 1917 to more than 200,000 during his years as Secretary.

The increase in membership began at a time when there was urgent need for a stronger Association. In the days following World War I, with the average salaries of teachers \$640—less than scrub-women and ditch-diggers were receiving—there was little incentive to teachers to remain in the profession when industry was offering temptingly high wages. Thousands of schools closed because no teachers were available. Tens of thousands of other schools were taught by whatever incompetent and under-prepared teachers could be secured.

Alert to its responsibilities to the nation, the National Education Association and its Department of Superintendence appointed a Commission on the Emergency in Education, which, under the chairmanship of Dr. George D. Strayer of Teachers College, Columbia University, brought to the attention of the people of the United States an awareness of the tragedy that was taking place.

In awakening the public, the Commission was successful. It did not succeed, however, in its goal of obtaining passage by Congress of legislation providing federal aid for schools and a Department of Education with a secretary in the President's Cabinet. Opposition came chiefly from representatives of some of the universities, from those who asserted that federal control would come with federal aid, and from certain church groups.

In the days when the Emergency Commission was making its influence felt throughout the nation and Association membership was increasing at an almost phenomenal rate, the NEA outgrew its first Washington headquarters. When Mr. Crabtree became Secretary, the Association had moved its headquarters to Washington from Ann Arbor, Michigan.



where an office had been maintained during Mr. Springer's secretaryship. In 1920 the Association moved into its permanent home at 1201 Sixteenth Street Northwest, Washington, D. C.

A professional headquarters staff was organized into these divisions: Records and Accounts (1917); Field Work (1918); Business (1919); Publications (1920); Secretary's Office (1920); Research (1922); Elementary-School Service—later Classroom Service, still later, Affiliated Associations (1922); Membership (1925); and Rural Service (1936). In 1922 the Association's large and influential Department of Superintendence brought a staff headed by Executive Secretary S. D. Shankland to the headquarters office. Of the Association's twenty-seven departments, nine have established offices at NEA headquarters since the superintendents took this step.

In January 1921, the first issue of *The Journal* of the National Education Association, official organ of the Association, appeared. Edited by Joy Elmer Morgan, *The Journal* was the successor to *The Bulletin* which had been started by Secretary Springer in 1913. In the early days Association publications had been limited to the convention program and *Proceedings* and committee reports. The publishing program since that time has expanded until the NEA has come to be the largest publisher of literature on education in the world.

*Research Bulletins*, first published in 1922, give to the profession the benefit of the Association's vast program of research in educational finance and administration, teacher welfare, curriculum, and other fields. NEA departments and committees issue publications on such widely divergent subjects as mental hygiene, tax education, and international relations, and in such volume that in 1941-42 the Association published more pages of educational literature than during its entire first fifty years.

In 1930 a much-needed addition to the headquarters building was erected. The new building was financed out of the Permanent Fund, which had been built up by the Association's Life Members. There had been a Life Membership earlier, but it was discontinued in 1895. Then in 1920, at the suggestion of Secretary Crabtree, a \$100 Life Membership was made available to those who wished to support education and the organized profession in this way.

In the days of the National Teachers' Association, all members could meet in a small room to conduct Association business. Later conventions of the NEA became huge gatherings which taxed the capacity of large auditoriums. Since members voted directly on all business, teachers of the convention city enrolling large numbers for that meeting could dominate affairs. The demand for a more representative arrangement began to be heard during Dr. Shepard's secretaryship and was one phase of the struggle for democratization of the Association. Under Mr.

Springer, a Committee on Organization was appointed in 1915, with William B. Owen of the Chicago Normal School as chairman. Under Mr. Crabtree, the reorganization was effected.

A plan to unite local, state, and national educational associations into one organic whole with a Representative Assembly composed of delegates from state and local groups was adopted by the NEA at its Salt Lake City convention in 1920 and by all the state associations and hundreds of local groups the following year.

Under the set up adopted at Salt Lake City, however, the Representative Assembly had a number of ex-officio delegates, including state superintendents of public instruction and past presidents of the Association. Past presidents and former United States Commissioners of Education were also members of the Association's Board of Directors. This Board is made up of a representative from each state and is somewhat comparable to the United States Senate, with the Representative Assembly comparable to the House of Representatives. The convention of 1937 saw the removal of the last ex-officio representation from the governing bodies and marked another step in the Association's democratic evolution.

The NEA has not devoted itself to matters of internal structure to the neglect of fundamental educational problems. Its members, officers, committees, departments, headquarters staff, and conventions have been—especially since 1917—concerned with the two main purposes of the organization, the improvement of the educational service and the improvement of teacher welfare, with the latter viewed as a means to the former.

The Association, from the days of William Russell, T. W. Valentine, and its other founders, to the present moment, has developed a national educational leadership. A roll call of its leaders, over its eighty-five years, is virtually a roll call of the "great names" in education during that period.

Impetus to curriculum revision, begun by the Committee of Ten, has continued with the work of the Commission on the Reorganization of Secondary Education, which in 1918 formulated the seven cardinal principles of education; the Curriculum Commissions of the Department of Superintendence which beginning in 1923 prepared a series of widely used yearbooks on curriculum; and the many other departments and committees which have led in this field.

The Association, beginning about 1920, has pioneered in educational interpretation and has received the cooperation of lay and other professional groups, as exemplified by its joint sponsorship of American Education Week with the American Legion, the United States Office of Education, and the National Congress of Parents and Teachers.

From its first meeting the Association intermittently discussed teacher welfare, but did not progress far beyond words until 1903 when its

National Council on Education appointed a Teacher Welfare Committee. In 1911 the Association itself appointed a Committee on Teachers' Salaries, Tenure and Pensions, with Joseph Swain as chairman. Since that time, and particularly since the Emergency Commission after the World War carried to the public the message of the vital importance of reasonable salaries for teachers, the NEA has been a major force in the raising of teachers' salaries. Committees on tenure and retirement, with the NEA Research Division, serve as a clearinghouse enabling local groups to secure legislative advice and other assistance. The Committee on Tenure in 1933 became an active champion of teachers' rights. A Committee on Academic Freedom was appointed in 1935.

The Association has never rendered greater service to the schools than during the economic crisis of the early 1930's. The financial collapse fell heavily upon the schools, forcing them to curtail activities when they were most needed. To meet this situation, the NEA and its Department of Superintendence, early in January 1933, appointed another Commission on the Emergency in Education, with John K. Norton as chairman. This "Joint Commission" collected information with regard to the serious plight of the schools and disseminated these facts to the country at large. The Commission cooperated with the NEA Legislative Commission in working for emergency federal aid to the schools, in which effort they were partially successful. The economic crisis re-emphasized the need for federal aid, and the Association has since 1935 attempted to secure passage of such legislation.

When the "Joint Commission" made its final report in 1935, it recommended creation of an Educational Policies Commission, whose purpose would be to stimulate thinking and long-term planning, looking toward the continued adaptation of education to social needs. Such a Commission was appointed by the NEA and the Department of Superintendence (now the American Association of School Administrators) in 1935, with A. J. Stoddard as chairman and William G. Carr, executive secretary.

The work of the Educational Policies Commission has been one of the most significant features of the secretaryship of Willard E. Givens, former Superintendent of Schools in Oakland, California, who succeeded Dr. Crabtree upon the latter's retirement at the end of 1934. Dr. Givens has worked toward the realization of the dreams for the Association by which Dr. Crabtree was guided, but he has made significant contributions of his own. He has given leadership especially in encouraging the growth of departments, in eliciting greater interest in NEA on the part of higher education, in stimulating interest and achievement in teacher welfare, in cooperating with lay and professional groups, and—now—in giving direction to the Association's all-out-effort to safe-



guard the schools, as the nation's second line of defense, during the war emergency.

These, then, are the broad strokes in the picture of the Association painted by this study. Mention has not been made of the dozens of miniatures of persons and thumb-nail sketches of situations which go to make up the composite picture and which were made possible through access to more than 20,000 letters from the NEA files and to other unpublished Association materials. Structure lines for the study were obtained from NEA publications, educational periodicals and books, theses and dissertations, and newspapers. The pattern of the detail for giving scale came from conference and correspondence with some of the leading figures in NEA history. It is hoped that the resulting portrait is a true one of an organization whose avowed purpose is "to advance the interests of the teaching profession, promote the welfare of children, and foster the education of all the people".



## STUDENT PERSONNEL WORK IN SCHOOLS OF NURSING

by HELEN FOX\*

Nursing leaders in increasing numbers are recognizing the need for a planned program of student personnel work in schools of nursing. They are endeavoring to secure and use more successful methods of recruiting and selection, and they have become conscious of the student's need for counseling and guidance. To collect and interpret for their use the available information regarding the principles and practices of student personnel work in schools of nursing is the purpose of this study.

In order to provide perspective for the study of student personnel work in schools of nursing, the writer traced the development of the educational personnel movement from 1908 to the present time. She also presented a summary of the literature relating to personnel work in various types of educational institutions, particularly as pertaining to the personnel services discussed in this study. As part of the educational system of this country, nursing education reflects the trends appearing in other fields of professional higher education, and the growing interest in student personnel work has influenced leaders in nursing education. For this reason, the writer has attempted to show how guidance principles and practices developed in other institutions of learning can be applied to schools of nursing, and has offered constructive suggestions as to the procedures useful in various steps of the student personnel program. Finally, a suggested plan of organization of a student personnel program has been presented, including a discussion of the possible duties of the nursing personnel included in such a program.

### *Introduction*

With the growing need for trained nurses brought about by the war, careful methods of selection and provisions for adequate guidance have become very important in nursing schools. While the 1,303 nursing schools in this country normally graduate about 20,000 young women, this year (1942) these schools are asked to train 50,000 nurses. Under these circumstances, attempts are being made to minimize the excessive number of drop outs by eliminating at the start the 10 or 15 per cent which in the past have left because of scholastic failure.

### *Backgrounds of Student Personnel Work in Nursing Education*

In the United States the vocational guidance movement began in 1908 with Parsons in Boston, who formed the Vocation Bureau. The First World War stimulated the personnel movement generally, and the movement has now increased in breadth and intensity until it includes in its scope industry, government, and all types of educational institu-

\* A.B. 1937, A.M. 1939, The George Washington University. Ed.D. conferred June 3, 1942.

tions. However, it was not until 1935 that nursing leaders began to realize their need for a new philosophy of education that would emphasize the adjustment of the individual. Nursing educators have realized that studies made in the field of student personnel work indicate the need for better methods of recruiting, selection, orientation, and guidance, and 68 per cent of the executives answering the writer's questionnaire sent out in 1939 expressed the opinion that a planned guidance program was necessary in schools of nursing.

### *Recruiting*

Because of the shortage of nurses, hospital schools have found it necessary to adopt better methods of recruiting. In the past they contented themselves with sending out booklets about the hospital or planning to have interested candidates visit the school. Now individual hospitals are holding carefully planned Hospital Days, and are sending nurses out to talk to the students in schools and colleges. The state and national leagues of Nursing Education are assuming more responsibility for preparing material which will accurately describe the nursing profession, and are supplying this material to high schools and colleges throughout the country. The radio is also being used to spread information about nursing.

The writer recommends that nursing leaders should use more up to date methods to attract likely applicants, such as the radio and the motion picture. Also state leagues of Nursing Education should assume greater responsibility for contacting high schools and institutions of higher learning in their own states. Better literature about nursing is needed, which portrays more accurately the work done by the student and graduate nurse. The high schools could help the nursing schools if they would offer better guidance programs in the schools and supply adequate vocational information to the girls interested in nursing. Nursing educators should encourage the training of leaders, and provide opportunities for students to acquire poise and fluency in public speaking, in order that later they may be potent factors in recruiting.

### *Selection of Student Nurses*

Administrators are awakening to the fact that the number of drop outs in nursing schools is excessive and are seeking ways and means to prevent failures. They are using intelligence, aptitude, and personality tests in increasing numbers, as part of the selection process. Although these tests predict fairly well whether or not an applicant can do the academic work in a nursing school, no such prognostic measures have been found to eliminate those who later leave for other reasons. Selection is also made more difficult by the varying standards and different grades of marking prevailing in the high schools, since marks from one school may not be comparable to those from another. Furthermore educators do not

agree on the characteristics of a good nurse, though some attempts have been made to study successful nurses and list their outstanding traits.

The writer recommends that educators make use of all available data on the selection of nurses, thus eliminating the unfit before admission, reducing the number of drop outs, saving both the student's and the school's time and money. To this end, superintendents should consider a battery of admission tests indispensable in careful selection of student nurses, supplementing information gained from the personal interview, personality rating scale, and physical examinations. High schools could help by standardizing grading and marking, so that marks in one school would be comparable to those in another. Much research is needed, especially as to the qualities essential for success in nursing. Tests of emotional maturity and interest need to be used more frequently, and their predictive value determined in relation to success in the nursing school.

#### *Orientation*

The need for a period of orientation in the nursing school was first recognized in the past decade. Various methods have been used by the hospitals to assist in orientation of the new student. These include conducting tours of the hospital and tours of the school, planning social events, and holding conferences with a faculty adviser. Many hospitals use the "Big Sister Plan". For orientation to professional life, the nursing schools offer assistance through courses in History of Nursing and Professional Adjustments. Hospital administrations realizing that the student needs help when orienting herself to new wards and services, and when she affiliates at another hospital, are attempting to provide for such needs.

The writer suggests that the hospital can further assist the student during the orientation period by providing an opportunity for her to learn as much as possible about the nursing school, and by making her feel at home and happy in her new environment. At this time too, the hospital should take the opportunity to impart to the new student an interest in and a zeal for her new profession. During this period, likewise, the hospital should attempt to supplement the information which it already has concerning the student.

#### *Social Adjustment and Extra-Curricular Activities*

Nursing school leaders are beginning to realize that the student nurse has varied social problems and needs help in adjustment. One of the many responsibilities which they have assumed is student training in the social amenities.

A survey of hospitals shows that they are providing for social adjustment in the following manner:



- a. Through courses in social adjustment
- b. Through personal counseling
- c. Through classes in professional adjustments, sociology and social problems, psychology and history of nursing
- d. Through planned extracurricular activities
- e. Through student government organizations

The writer recommends that all hospitals provide a person or persons especially trained to help in social adjustment, or, next best, an "in-service" program under expert leadership. All nursing schools need a planned program of social activities, based on the expressed needs and desires of its student nurses, and planned to develop worthwhile interests which will carry over to adult life. The nursing school should further provide such suitable environmental factors that the student may develop to the fullest her social potentialities. Executives and teachers should allow time in their schedule for help to those students in need of assistance in the social area, and the time tables of such students should allow time for rest, relaxation, and recreation. Another opportunity for development should be provided through participation in student government.

#### *Personality Adjustment, Health, and Financial Problems*

Studies which have been made indicate that personal problems exist among nursing students in the emotional, family, and financial areas. We find that provision is being made by the hospitals to help in personality adjustment by:

- a. Offering courses in mental hygiene
- b. Appointing faculty members to counsel students
- c. Appointing a resident director who is responsible for nursing guidance
- d. Using the services of a psychiatrist
- e. Having a psychologist available

Hospitals also offer financial aid through loans and scholarships, and, more recently, through the National Youth Administration. Although most hospitals make some attempt to help in personality adjustments, most lack organized programs.

The writer recommends that nursing schools provide for use in counseling an adequate cumulative record for each student, as an aid in student personality adjustment. Hospitals should also provide the services of a trained counselor, a psychologist, and a psychiatrist. Financial aid could be offered to more worthy students if the hospitals would canvass all available resources. The student nurse could also be aided by helping her to keep in good physical condition, which should be done through planned health programs.



*Educational Guidance*

The student nurse often needs help in meeting the requirements laid down by her school. Nursing schools are attempting to meet these needs of the student nurse by:

- a. Offering courses in how to study
- b. Giving help in budgeting time
- c. Using tests in counseling students

Formal programs of educational guidance are needed in nursing schools, to reduce the number of drop-outs because of scholastic failure. The nurse needs more help than ever before, now that educational standards in nursing schools are rising and many curricula have been set up on the assumption that all nursing students have had at least one year of college work.

The writer recommends that the staff of every nursing school include at least one person trained to interpret test results, so that adequate information may be at hand concerning the individual's achievement, aptitudes, and abilities. Also there should be in these schools a wider recognition of and provision for individual differences. Teachers in the nursing school often do not realize the importance of motivation. Another way in which student nurses can be helped in educational adjustment is through better methods of teaching. In this connection more emphasis should be put on class discussion, conferences, laboratory work, and field trips. The hospital could aid the student in her adjustment if it adopted an educational philosophy which regards nursing as a form of professional higher education rather than a training in technical skills.

*Vocational Choice, Placement, and Follow-Up*

Surveys of vocational problems among the student nurses have shown that vocational interest is low. This is alarming to leaders in nursing education since the increasing number of fields open to graduate nurses makes guidance doubly necessary. Surveys have shown that the hospitals are attempting to meet the student's needs through classes, conferences, and try-out experiences. However, few hospitals use tests in assisting the nurse to make a vocational choice. In the field of placement, likewise, little work is being done by the nursing schools.

The writer is of the opinion that much work needs to be done to increase the amount and value of vocational guidance in nursing schools. Tests should be used more frequently to determine whether or not the candidate has sufficient scholastic ability to enter training. The hospital should provide more try-out experiences for its student nurses, and should take more responsibility for the placement of its graduates. Follow-up work should be done by two agencies, the registry, and the alumni association. The registry should report to the hospital the success of its

graduate nurses, and the alumni associations should follow up their graduates at the end of one, three, and five years.

#### *Organization of a Student Personnel Program*

In the writer's survey of 190 hospitals, leaders in nursing education stated that they considered the most important factors in a guidance program to be adequately trained personnel, individual conferences, and faculty advisers who can give personal attention to students. Sixty-eight per cent of these executives stated that they felt a guidance program for nurses was necessary for the best adjustment of the individual. In such a personnel program the Superintendent of Nurses must head the organization and must have the full cooperation of the faculty. The minimum number of trained personnel essential to a good personnel program would be a psychologist, a psychiatrist, and at least one faculty member trained in personnel procedures. The counselor in a nursing school should be a college graduate with special training in personnel work. She may or may not be a nurse.

The writer recommends that any personnel program set up in a nursing school vary with the hospital's conditions and needs. No blanket prescription should be made. Increasing emphasis should be laid upon the importance of the right environment in the nursing school. Since no guidance program can ever be successful without the full cooperation of the hospital staff, in-service training programs should be set up in all hospitals for graduate nurses, to make the staff aware of their responsibility in the student personnel program. Information about the success of the personnel programs now in existence would be of aid in determining their value in nursing schools, and further research along these lines is needed.

## A GUIDANCE PROGRAM IN A VETERANS ADMINISTRATION FACILITY

by LUCILE MARY HERRICK \*

The 91 facilities of the Veterans Administration with a bed capacity of 61,852 patients, 18,739 domiciliary patients, and a yearly average of 1,124,374 out-patients is the largest medical-caring organization in the world. These facilities are located in 45 of the states and the District of Columbia. This federal governmental agency employs 45,472 people of whom 2,044 are physicians, 4,447 nurses, and 102 medical social workers. All are under the federal Civil Service, and play either direct or indirect parts in assisting patients in their hospital, occupational, and social adjustments.

The purpose of the study is to make an analysis of the guidance problems and procedures in a Veterans Administration Facility with a view to the suggestion of improved techniques for the use of medical social workers.

Data was obtained through a survey of the activities of a typical Veterans Administration Facility and 274 personal interviews with patients, veterans and beneficiaries referred to the writer in her capacity as medical social worker during the three-year period from October 1938 to April 1941. These interviews included war and peace-time veterans; members of patients' families; federal employees who were annuitants, applicants for retirement annuities, and those referred by federal agencies for determination of mental and physical fitness in relation to required duties. Data obtained from the interviews were supplemented by conferences with physicians and other members of the staff, members of the patients' families, supervisors, employees and friends, personal physicians, personnel of government agencies, and staff members of community social agencies and institutions.

### THE DEVELOPMENT AND FUNCTIONS OF MEDICAL SOCIAL WORK

The chief purpose of medical social work is to develop in the individual the fullest possible capacity for self-maintenance in a social group. Such an objective is challenging, and, to achieve it, requires a comprehensive understanding of the patient as a person, as well as the influences, opportunities, and limitations that surround him.

The historical development of medical social work has been shaped largely by the activities of five groups: the Society for After-Care of the Insane in England, Doctor Calmette's work in France, the Lady

\* B.S. 1924, University of Minnesota; A.M. 1928, The George Washington University; Ph.D. conferred June 3, 1942.



Almoners in England, the services of the Visiting Nurses Profession, and the work of Doctor Charles Emerson of Johns Hopkins University. The first social service department in the United States was developed at Massachusetts General Hospital by Doctor Richard C. Cabot of Boston. In later years, the development of medical social work has been greatly influenced by the American Association of Medical Social Workers.

The functions of medical social work currently recognized include the organization of programs within medical institutions, the preservice and inservice training of personnel, the practice of medical social case work, participation in community health programs, and medical social research. Specifically the primary functions of the medical social worker in a Veterans Administration Facility are to secure data concerning needed adjustments of patients, veterans, or beneficiaries and their dependents; to obtain financial assistance for patients and their dependents; to cooperate with social agencies in working out plans for patients; and to work closely with the physicians concerned in carrying out their recommendations for the welfare of the patients.

#### GUIDANCE PROBLEMS OF THE MEDICAL SOCIAL WORKER

The individuals, who seek guidance in a Veterans Administration Facility, differ greatly with respect to age, status, occupation, educational background, medical history, and type of social problems presented. Their guidance problems are made more difficult by a sharing of the guidance process between the medical social worker and several ward surgeons, who possess varying opinions as to how the patient's needs should be met. Because one physician on a medical service may suggest treatment markedly different from another physician, an added responsibility falls upon the worker to have a complete understanding of all phases of the problem to insure its accurate interpretation to the physician together with a sound concept as to the approach and methods of social case work and guidance.

#### PERSONS REFERRED FOR GUIDANCE

Cases are usually referred to the medical social worker by physicians, regional attorneys, and rating boards. Referrals from physicians as a rule involve patients whose diseases have characteristic social aspects. These include cardiac trouble, syphilis, tuberculosis, cancer, diabetes, and allergies. Surgical and neuropsychiatric cases also are referred frequently.

Two-thirds of the referrals from regional attorneys were found to be children whose fathers were deceased. The remainder were veterans.

Considering the entire group of referrals it was found that the age range of children was 5 to 19 years while that of adults was 42 to 89 years. The majority of those seeking guidance were from broken homes.



As might be expected the majority were men (240 men, 34 women). Many of the men were transients.

The factors that interfered with occupational adjustment were many and varied. Age frequently interfered with employment (mean age was 50.4). Situations developing out of hospitalization and irregular employment created problems. Domestic difficulties and the lack of suitable food and clothing were other factors.

Of those seeking guidance the largest occupational group was engaged or had previously been engaged in clerical occupations. Laborers, mechanics, and salesmen ranked next in order.

Although the majority (153) of those seeking help had not graduated from high school, a surprisingly large number had had some post-high-school training. Many veterans took advantage of opportunities for vocational training provided after World War I and others made use of the numerous educational opportunities provided for both day and night students in the District of Columbia. Of course the majority of referrals from the federal service had educational backgrounds beyond the high school level.

The geographical distribution of domiciles of those included in the study was extensive, 23 states and the District of Columbia being represented. The housing facilities of 58.7 per cent of the group were classified as excellent or good. Thirty per cent had poor housing facilities. For the remainder of the group insufficient information made it impossible to classify housing facilities.

#### THE RELATION OF GUIDANCE TECHNIQUES TO SOCIAL CASE WORK

A significant result of this study has been a realization that guidance techniques related to social case work methods may be integrated effectively with the daily activities of the medical social worker. Important, in the final analysis, are the worker's attitudes, her capacities and skills, and the manner in which they are correlated with the patient's needs and his environment. The best techniques to be used in an individual case depend upon the particular factors involved. There are no standard techniques. Nevertheless, procedures may be classified to include the keeping of personnel records, interviewing, making case studies, testing, counseling, holding guidance clinics, and directing group guidance. Counseling is only effective to the degree that the medical social worker is well informed concerning the characteristics and potentialities of the patient and the influences of his home, occupational, and community environments.

Probably the personal interview is the tool used most effectively by the social worker. The group interview is found to be of value in interviewing relatives to secure social data concerning the patient, in obtaining data from employers and supervisors relative to the patient's occupa-

tional adjustment, in making arrangements for a trial visit of the patient, and in making plans for the patient's return to his occupational environment. The clinical method in guidance is useful in case conferences as it centers around the formulation of a diagnosis. The only type of mental test commonly used is the Stanford Revision of the Binet-Simon Test which is administered by the psychiatrist. Laboratory tests are requested when found helpful to aid in diagnosis. Group guidance is used by the medical social worker in counseling members of the family of the patient as to their treatment of him when he is discharged from a neuropsychiatric institution, and when conferring with supervisors and employers in planning for the patient's return to his employment.

#### PROBLEMS CONCERNING THE PATIENT AND HIS FAMILY

The wide variety of problems presented in this study shows the importance of the medical social worker having a wide background of experience. She should approach each case with suspended judgment. As the patient relates his problem, it is essential that the worker distinguish between the actual physical handicap, that is the actual damage which the disease has caused, and the degree of disability. Some patients meet their problems with ease, while others, with less physical damage, have difficulty in rising above the physical impairment when planning with the worker concerning their future adjustments. The procedure, in such cases, is to use all possible sources of strength within the patient himself and his environment so that his fears, maladjustments, sense of failures, and feelings of hopelessness will not increase.

The leading types of problems were financial, health, and hospital adjustment. Physicians referred about twice as many cases for guidance as the social agencies. Case studies indicated that there are many problems which must be solved before the medical care is effective. Evidence of success was found in the patient's increasing ability to solve his own problems and in diminishing requests for continued aid.

#### PROBLEMS RELATING TO FEDERAL AGENCIES AND THEIR EMPLOYEES

In conducting interviews with federal employees, it was observed that it was more difficult, in contrast to veterans, to establish a feeling of confidence. The examination to determine employability usually preceded retirement procedures, and the employee was suspicious of the worker's motives and her relationship to the Civil Service Commission and to his government department. It is essential in such cases to convince the employee that his rights and interests will be protected. In most cases it was found that the employee's supervisor had not discussed the problem of poor occupational adjustment and the advisability of retirement with the employee. It was particularly evident that personnel officials of federal agencies frequently do not recognize problem cases in

the early stages of their development. A complete physical and neuropsychiatric examination of each employee prior to his induction into the federal service would forestall many such cases. If this were supplemented by annual examinations of all employees many cases would be discovered at a time when treatment would be most effective.

#### A SUGGESTED GUIDANCE PROGRAM IN A VETERANS ADMINISTRATION FACILITY

This first step in formulating a guidance program is to define clearly its functions and objectives, and the areas which are essential to the fulfillment of these functions and objectives. The establishment of a good program requires the study of effective methods of guidance and counseling, and consultation with experts in the field. The director of guidance and the counselors should be carefully selected.

A complete program of guidance should include the individual inventory, occupational information, counseling, exploration of training opportunities, placement, follow-up, and research.

A centralized guidance organization is most suitable for a Veterans Administration Facility. In this connection it should be kept in mind that it is a hospital enterprise, all staff members must participate, the guidance activities of each staff member should be considered a part of his job load, the organization should be simple, and the underlying purpose should be to assist the patient to make wise choices, adjustments, and interpretations. There should be definite specification of guidance duties for the examining physician or ward surgeon, the nurse, the hospital librarian, and the medical social worker. The medical social worker's contribution, however, is different from, and supplementary to the services rendered by other members of the staff.

Provision should be made for systematic evaluation of the guidance activities with respect to adequacy of the program and effectiveness in meeting the needs of those seeking help.

#### THE NEED FOR FAVORABLE RELATIONSHIPS WITH SOCIAL AGENCIES AND COMMUNITY ORGANIZATIONS

Between the workers in a Veterans Administration Facility and the staffs of other social agencies and institutions there should be complete confidence and understanding. The medical social worker should interpret to the patient the value of a good relationship with these groups as well as his duties and responsibilities as a citizen. Fostering such healthy relationships may greatly promote the recovery of the patient.

The medical social worker should be acquainted with the program and organization of each cooperating social agency and understand its role in carrying out the recommendations of the physician, solving the patient's problem, or aiding in the patient's hospital and community adjustment. In working with community groups the medical social worker should



make sure that each representative has a clear conception of the problems and the role of his organization in their solution.

For most effective cooperation representatives of social agencies and community organizations should be provided with some information concerning medical procedures. In fostering favorable relationships with these groups the medical social worker will find it essential to make personal contacts with the leader concerned.

The compilation of an alphabetical reference file of cooperating agencies will be found to be of great value. A useful classification groups those providing financial assistance, health facilities, social and recreational opportunities, education and training, placement, and help with personality problems.

#### GETTING A GUIDANCE SERVICE STARTED IN A VETERANS ADMINISTRATION FACILITY

The present need for a guidance and counseling service in a medical institution suggests that its starting point will be in counseling rather than in administration. At first, a small number of persons will be served, but as its influence is felt steps will be taken to relate this particular function more clearly to the patient's needs. As administrators become conscious of the results, and the fact that a specialized type of personnel is required to administer such programs, a more complete and effective organization can be established.

Medical social workers, after adequate training, should begin the guidance service as an additional responsibility to their present duties. Eventually special counselors with the necessary professional training should be provided.



## JULIA STRUDWICH TUTWILER, ALABAMA PIONEER

by CLARA LOUISE PITTS •

Julia Strudwich Tutwiler's life spanned three quarters of a century. She was born on August 15th, 1841 and died on March 24th, 1916. Three different localities in Alabama claim the distinction of being her birth-place; namely, Greene Springs, Tuscaloosa, and Florence. Being the daughter of Henry Tutwiler and Julia Ashe Tutwiler, she was descended from prominent Southern families. The home into which she was born provided that heritage which enabled her to secure an education, to travel widely, to associate with those prominent in state affairs, and to exert a wide influence on educational and social conditions in Alabama.

*Preparation for Life Work.*—Miss Tutwiler had an extremely broad and varied training, for a young woman of her time. She completed her elementary and secondary courses in her father's academy in Greene Springs. During the years 1858-60, she lived with a French family in Philadelphia and studied there. After the War Between the States, she went again to Philadelphia in 1865 and entered Vassar when it opened in 1866. The Reconstruction period temporarily interrupted her plans for an education. However, she had private tutoring from professors at Washington and Lee University during 1872-73 before her years of study abroad.

The three years in Germany during 1873-76 were devoted to hard work. The first year was spent at Kaiserworth in a normal school conducted by an order of deaconesses who carried on other activities. These included the operation of an orphanage and of a hospital as well as work in the rehabilitation of prisoners. The next two years were devoted to study at the University of Berlin. When this work was completed, Miss Tutwiler was granted a diploma which permitted her to teach in the schools of Germany.

An opportunity to study in France came in 1877 when Miss Tutwiler won the distinction of representing the magazine *Education* at the Paris Exposition. While she was in Paris, she was given time to do some study. She used it to take some work in French literature and under the guidance of the school authorities to visit many types of schools.

Each phase of Miss Tutwiler's preparatory training contributed some experience especially helpful to her in her later life. In her father's co-educational school she seems to have learned that she could do as good work as any young man student and that she could count on winning arguments with them quite often. The year at Kaiserworth confirmed her desire and aided her in developing techniques to help the underprivileged.

• A.B., 1906, Shorter College; A.M., 1916, Columbia University; Ed.D., conferred June 3, 1942.

Her visits to schools in France interested her in a state controlled technical college for women.

*Work as an Educator.*—Miss Tutwiler's early teaching experience was a period of growth for her, perhaps, but she made no special contributions to the educational work of the state until after she became co-principal of the Livingston Female Academy in 1881. It was here that her creative work in education began. At this time the school people of the state were discussing the need for state normal schools. Immediately, she interested the trustees of the Livingston Academy. Two of these members interviewed the state legislator from the county and secured his active cooperation. The law providing for the establishment of the normal school in connection with the Livingston Female Academy was passed during the legislative session of 1882.

A study of the catalogues from year to year reveals that the normal school was an extra undertaking during that first year. However, each succeeding year the normal school grew in importance until all information regarding the academy disappeared from the catalogue entirely. As early as 1888 all data given referred to the normal school and to the special subjects offered for the non-teaching group.

The changes which appeared in the catalogues from year to year were made to meet the needs of the girls as Miss Tutwiler discovered them on the campus or from the field. For example, the catalogues of 1888 offered post graduate courses in advanced reading for young women who wished to teach in high schools. Physiology was added to the list of required subjects for each normal school student because some girls reported a high death rate among the young children in certain localities.

In her effort to help young women, Miss Tutwiler found that many of them could not become successful teachers but that their financial situations made it necessary for them to earn their living. To meet this need vocational courses such as telegraphy, typesetting, and bookkeeping were introduced.

Of course, these offerings added to the already too heavy programs carried by the regular members of the Livingston staff. Since they did not know these skills, the cooperation of the people of the town was secured to teach them. However, in order to know that these courses were worthwhile, it was necessary for a member of the regular faculty to keep in close touch with the progress made by some one girl.

Although Miss Tutwiler listed these courses in her catalogues over a long period they did not fulfill her conception of a desirable training. For this reason she conducted simultaneously two state-wide campaigns during the years 1880-92. These drives were designed to secure state provision for the training of the young women of the state.

One of these campaigns was devoted to the establishment of a state technical college for women. In 1880, Miss Tutwiler's first paper on this

subject was read for her before the general meeting of the Alabama Education Association. An article about the need for this type of school was printed in the national magazine, *Education*, in 1882. The Proceedings of the Alabama Education Association has a report of a second speech made on this subject in 1888, and the 1889 issue contains a copy of resolutions favoring the establishment of such a school. Bills authorizing the organization were introduced in the legislatures of 1888 and 1890. Miss Tutwiler lobbied for these bills. She aroused the club women of the state to lobby and to write to the legislators. Finally, the state legislature of 1892 authorized the State Technical College for Women and she was offered the presidency when it was opened in 1893.

The other campaign was directed toward securing for young women admission to the state university on terms equal to those for young men. Since Alabama was admitted to the Union in 1819, it received the benefit of that federal law which stated that the lands granted to the state university were to be used for the education of the youth of the state. Miss Tutwiler insisted that young women came under this classification. She talked to the trustees of the university individually and asked representative women of the state to talk to any trustee known to them personally. Club women were encouraged to write each trustee or the one living nearest them.

These letters, and requests, coming from all parts of the state, caused the trustees, in 1893, to open the junior and senior classes of the university to young women as special students. Since no provision was made for their living quarters, only three young women whose parents lived in Tuscaloosa entered that first year. The number rose to fifteen only during the next four years.

Recognizing the reason for this slow increase in enrollment, Miss Tutwiler requested the trustees, as an experiment, to provide a cottage in which twelve of her girls could be permitted to live on the campus and be enrolled as regular students in the university. These two requests were granted in 1898 although the trustees wrote into the minutes of this meeting, "We doubt the wisdom of this action."

That the experiment was a successful one is shown by the minutes of each succeeding year. Perhaps the minutes of the 1901 meeting are the most revealing. These show that the trustees were planning to build a dormitory for young women. "This building is to be called the Julia Strudwich Tutwiler Hall because of the campaign she conducted to gain the admittance of young women to the regular courses of the university."

*Educational Theories.*—In general, the girls sent into the field from Livingston seemed unusually well adapted to their work. What were the admonitions given to these girls over and over again? What were the theories of education Miss Tutwiler insisted upon having observed?



The precepts as found in her writings and as remembered by some of those who worked with Miss Tutwiler, include these statements:

1. Each child is an individual, different from each other child, and he should be treated as an individual throughout his school life. He should be given the opportunity to develop his interests and aptitudes to their greatest capacities.
2. Each child must be inspired to want to seek knowledge for itself.
3. A wide experience is a broadening influence.
4. Lessons should be systematically organized and correlated.
5. A broad cultural knowledge is a necessity for each child and also for any teacher who wishes to guide children in the best manner.
6. Each person should be an independent economic unit and so trained that he will use his talents for the benefit of his less fortunate brothers.

These statements, as far as they go, are in line with the philosophy accepted generally now. The physically sound individual is not stressed though physiology was a required subject for all of her students. The sixth statement may seem narrow when compared with present day statements which include promotion of the progress of our own democracy leading toward world citizenship. However, they are far in advance of the generally accepted theories of that time.

*Reformer.*—Miss Tutwiler described her early work in Alabama prison reform in two addresses. One, entitled "Our Brother in Stripes" is reported in the Proceedings of the National Education Association of 1890. The other was made before the International Historical Congress of Charities and Corrections which met in Chicago in 1893. In these papers a report was made of the steps taken in the campaign for the amelioration of prison conditions in Alabama.

Miss Tutwiler had returned to her native state from Germany at the close of the Reconstruction period. She had found the social conditions in the state at the lowest point they had reached in the history of Alabama. The condition of the jail in Tuscaloosa during the year 1876-77 was so shocking that Miss Tutwiler immediately began a campaign for its improvement. This campaign included cooperating with the county officials, interesting her friends, interviewing the prominent citizens, visiting church organizations, conducting a publicity program in the Tuscaloosa paper, and forming committees to meet specific needs.

As soon as conditions were improved in Tuscaloosa, this plan was used to arouse the citizens of other counties in the state. When the women in the other counties became aware of conditions, they asked Miss Tutwiler to visit them in order to help them plan suitable programs to meet the needs in each locality. No call was left unanswered.

These visits to many jails and prisons in the state revealed the general apathy and utter hopelessness of the inmates of all of the institutions.



Thus a state-wide program was begun to counteract this condition. Sunday schools and church services were conducted, suitable reading materials were furnished, classes were organized to teach the school arts and trades, and materials for recreation were furnished. The last included such items as dominoes, checkers, balls and bats, knives and wood for whittling, scraps for piecing quilts, and organs or pianos.

After many counties had been aroused to use the period of incarceration for making the prisoners into better citizens, a campaign was begun in 1880 to have the state pass laws requiring certain phases of the welfare program to be continued as a state function.

At this time, in 1882, the state officers of the Alabama Womans Christian Temperance Union invited Miss Tutwiler to become their state chairman for prison work. Although she had never been a member of the association, she accepted the work and continued it until 1913.

Each year she made reports to the association in which she described the work which had been accomplished and the immediate goals for the succeeding year. These reports reveal that at no time were the goals ever fully achieved. However, there was always some progress. They show that as the state was persuaded to take over some one function, the volunteers under Miss Tutwiler began another. For example, the first state prison inspectors were appointed in 1883, the hospital service and mission schools for prisoners became a state function in 1887, and a state chaplain was appointed in 1908. Another striking example of getting the state to take over work is found in the history of the Industrial School for White Boys. This was organized in 1899 and operated by a committee of women for several years before the legislature could be convinced that such an institution should be the concern of the state. At the meeting at which Miss Tutwiler reported that the school for white boys seemed to be well established she asked that the group begin to work for a similar school for negro boys. This project, too, was finally assumed by the state.

*Author.*—Miss Tutwiler was a prolific writer. While in Germany, during 1873-76, she wrote articles about life there in order to help meet her financial needs. At other times she seems to have written about some local or current event because she was interested in it. She liked to express her emotions in rhyme and as a rule she wrote a poem whenever the occasion seemed important to her. This timeliness of her writings caused her work to be widely read throughout the state.

Few of these articles or poems have survived. Only the poem which she wrote while in Germany because of a longing for her native state, lives on. It is now the state song of Alabama and each child in the public schools of the state learns at least three stanzas of it. Her writings in the field of education have lived, however, and are often quoted today.

*Conclusions.*—Judged by the evidence presented in this study, the achievements accredited to Miss Tutwiler have a sound basis in fact. The work for prison reform, the campaigns for higher education facilities for women, and the efforts to help individual young women become socially adjusted in the small towns in which they found employment were all carried on continuously throughout the years without any relief from her work in the normal school.

The data indicate that Miss Tutwiler originated each project, aroused a state-wide interest in it, and directed the campaign for its consummation. For her signal accomplishments she remains the most revered woman in the history of Alabama.

# THE EFFECTIVENESS OF THE HOME DEMONSTRATION PROGRAM OF THE COOPERATIVE EXTENSION SERVICE OF THE UNITED STATES DEPARTMENT OF AGRICULTURE IN REACHING RURAL PEOPLE AND IN MEETING THEIR NEEDS

by GLADYS GALLUP\*

Home demonstration work is a part of a nation wide educational program for rural people. With two other phases—Agricultural Extension and 4-H Club work—it forms the Cooperative Extension Program. The Cooperative Extension Service which conducts the program is a large educational agency employing (under county, state, and federal sponsorship) about 9,000 trained salaried workers who give educational aid free to all rural people. In 1940, approximately 1,141,000 rural women in more than 2,450 counties were affiliated with groups organized for home-economics teaching.

## PURPOSE AND SCOPE

This dissertation attempts to determine to what extent the Home Demonstration Program of the Cooperative Extension Service is effective in reaching the rural people of the country and in meeting their needs. More particularly, it is concerned with five questions:

1. What is the relative proportion of rural homemakers who are or who are not participating in the Home Demonstration Program?
2. How do the homemakers who are participating differ from those with whom the Program has no direct contact?
3. What are the reasons for the nonparticipation of homemakers?
4. What is the relative effectiveness of each of the various methods employed by the Extension Service in reaching rural families?
5. What are the needs of farm families? How effectively is the Home Demonstration Program meeting them?

The period covered in the studies upon which this dissertation is based is from 1936 to 1940—the last years of the depression.

## PROCEDURE AND DATA

Much of the basic data needed to answer the five questions considered in this dissertation were gathered by interview schedules used in home-to-home surveys conducted in 18 rural communities, located in eight counties, situated in four states—Massachusetts, South Carolina, Washington, and Indiana. These interview schedules were analyzed in the Division of Extension, U. S. Department of Agriculture.

\* B.S. 1918, Iowa State College; A.M. 1927, The George Washington University; Ph.D. earned February 22, 1941.



sion of Field Studies and Training under the supervision of the writer, while a graduate student at The George Washington University, working under the general direction of Meredith C. Wilson, Chief of the Division and Adjunct Professor of Education at the University. Additional data were obtained through questionnaire letters mailed to professional workers, local leaders, and homemakers in the 12 Northeastern States. The 1,535 letters received in connection with this part of the study were classified, studied, and analyzed in a regional conference of Extension Service leaders, and in graduate classes under the direction of the writer. The data derived in this manner were tested for validity by comparison with other statistical data, dealing with the situations of rural people, derived from the United States Census and similar publications.

Care was taken to secure representative sampling in the areas studied and there are reasons for believing that the four states selected represent fairly typical conditions of the regions in which they are located. The study of needs was undertaken to round out and complete the graduate research and was directed primarily by James Harold Fox, Professor of Education at the University.

#### PROPORTION OF HOMEMAKERS REACHED

Defining participation as a definite effort on the part of the homemaker to obtain information—as for instance, attending meetings, visiting the home demonstration agent, or inviting the agent to her home—it was found that in the current year of the survey 32 per cent of the homemakers were participating. An additional 23 per cent had participated in previous years—a total of 55 per cent reached. Of the male heads of households, 39 per cent at the time of the survey were participating in extension activities and, of the homes with children of 4-H Club age, 41 per cent had one or more children who were 4-H Club members.

Of the 1,037 homes visited, 60 per cent had one or more members of the family participating in extension activities at the time of the survey. But, on the other hand, nearly one-half of the homemakers surveyed—and there is reason to believe that this is fairly typical for the entire country—not only were not being reached but never had been reached by the Extension Service.

#### CHARACTERISTICS OF PARTICIPANTS AND NONPARTICIPANTS

In general, participants have better incomes, more of them own their homes, more of them have radios, telephones, and automobiles, and more of them live on improved roads. More of the participating homemakers can drive cars. They are slightly older than nonparticipating homemakers. Fewer of them are without children in their homes. Participants distinctly surpass the nonparticipants in formal education. More newspapers and magazines also enter the homes of participants.



Nevertheless, the groups do not divide themselves neatly into an upper two-thirds reached and a lower one-third not reached.<sup>8</sup> All types of income groups are found among both the participants and non participants. In fact, more than one-half of the participants have less than \$500 per year for family living. Indeed, the two most important selective factors determining participation are not directly economic (though they are related to the socio-economic status of the family) - the education of the homemaker and her ability to get to meetings.

#### REASONS FOR NONPARTICIPATION

Of the 695 nonparticipating homemakers that were interviewed nearly one-half, in the opinion of the interviewers, could become reasonably good participants. The principal reasons given by them for nonparticipation in the current programs were lack of transportation, poor health of self, lack of familiarity with extension activities, lack of interest in group meetings or organizations of any kind, lack of someone to care for small children, and lack of contact with the extension club or group.

#### EFFECTIVENESS OF TEACHING METHODS

In the homes visited, 60 per cent reported adopting or changing some home-making practices because of extension influence and the homemakers who changed practices reported an average of nearly four practices changed per home. Nearly one-half of these related to food and nutrition; a fourth to home management and furnishings; and over an eighth to clothing.

Of the teaching devices which brought about these desirable changes, the method demonstration was most successful. It is credited with bringing about 44 per cent of changes in practice. Bulletins accounted for 18 per cent; general meetings, 8 per cent; indirect influences 6 per cent; and circular letters, 5 per cent. Certain other methods such as news stories, exhibits, posters, radio, office calls, correspondence, and telephone calls produced few changes in practice.

#### THE NEEDS OF RURAL FAMILIES

Two home-to-home surveys and a questionnaire-by-letter showed fairly uniform opinions held by rural people in regard to the needs of rural families. A larger income was considered the greatest need. After this came the need of better management of time, resources, and money; of better health, including disease prevention and control; and of better housing. Frequently mentioned, also, were needs for better community

<sup>8</sup> For a complete report on the Home-Welfare Survey in Washington, D. C., see "The Home-Welfare Survey in Washington, D. C.," by H. W. Henshaw, A. H. Henshaw, and J. H. Henshaw, *Public Health Reports*, Vol. 30, No. 1, October 1915, pp. 1-100.

lite, for better family life, and for better clothing. After these came the need for better opportunity for youth, for better education, and for better recreation. Data gathered by two home-to-home surveys included no frequent mention of the need for better education; while that obtained by the questionnaire by letter, probably representing a better educated group, indicated that better education was an important need. Statistical data taken from the United States Census and other sources show that the opinions expressed by the rural people regarding their needs including need for better education are well justified.

#### OBJECTIVES OF THE HOME DEMONSTRATION PROGRAM

The general objectives of home demonstration work undoubtedly are closely related to the needs of rural families. However, they are stated by different individuals and organizations so broadly that their meanings are somewhat indefinite, and provisions for cooperation with rural schools, rural churches, and rural health services are somewhat less than is desirable.

#### EFFECTIVENESS OF THE PROGRAM IN MEETING NEEDS OF RURAL FAMILIES

Not only is the program planned to meet rural needs but almost every need is being met in some part of the country. A sampling of definite areas shows, however, that greatest emphasis is placed on home furnishings, food preparation and preservation, and clothing. These are essential subjects relatively easy both to teach and to put into practice. The Extension Service has done an effective job in teaching them. On these successes it must build the more extended program.

Some important needs, however, were left almost untouched by the program in the sample areas. Little was done by the Home Demonstration Program concerning the need for increased income. This is the most pressing problem—receives much attention from the Agricultural Extension Service. Indeed, the solution of this problem depends to a large degree upon national and world economic conditions. Obviously the contribution that can be made by the Home Demonstration Program is limited. For similar reasons very little was done about major housing problems. Other needs within the interest of some of the Service also received little attention. Needs related to health, better community life, family life, opportunities for youth, recreation, and education, that might well be the concern of an adult educational organization like the Home Demonstration Service, often received little emphasis. Cooperative efforts with other community agencies, such as rural health and welfare agencies, the rural church, and the rural school, were less than they should be.



## RECOMMENDATIONS

Improvement of the Home Demonstration Program rests upon two great but simple requirements. The Program must reach more rural people and meet more of their needs. The following recommendations are made with these requirements in mind.

1. The objectives of the Home Demonstration Program should be restated in terms of functions based upon the specific needs of rural people.
2. States should encourage the further study of local situations, the listing and analysis of needs, and the determination of the best means of meeting them.
3. The Home Demonstration Program should promote, more effectively, coordinated efforts on the part of state and county workers, representatives of other community organizations, and the rural people concerned, with a view to more fruitful determinations of needs and more realistic programs for meeting them. In this connection, both immediate and long-time needs and plans should be considered.
4. The Extension Programs should emphasize the family life as a unit—consideration should be given to combined programs and meetings for men, women, and children.
5. The Extension Programs should relate each subject or activity to major needs, such as health, family, welfare, and community life. The teaching of those simple concrete subjects which Extension has dealt with so successfully in the past should be continued, but they should be considered in relation to larger problems.
6. More emphasis should be placed on those problems not being adequately met by the Extension Service. Typical problems are income, major housing problems, health problems—care of health, prevention and control of disease, extension of hospitals and medical and dental service—family life problems, community problems including the rural church and the rural school. These problems should be attacked in cooperation with other agencies.
7. The home demonstration agents should be trained to meet these more extensive problems by further and better training; especially in economics, family relations, psychology, and sociology.
8. A fundamental course in education which would review what schools are trying to do and how they are doing it should be of value to all extension agents.
9. Some training should be given to extension workers in the techniques of research in the field of extension. This could be done on an inservice basis.

10. Extension agents should be given training through undergraduate work, through field inservice training, and through graduate work. Graduate work would be facilitated considerably by the provision of sabbatical leave for extension workers, and by the organization of short courses for which the vacation of extension workers might be used.
11. Because of transportation difficulties, work should be taken closer to the groups, and groups should be organized on a neighborhood basis.
12. The local leadership system should be greatly extended.
13. Attendance of homemakers at meetings should be made easier by such methods as organizing transportation pools, and developing plans for caring for children during home demonstration club meetings.
14. Teaching methods should be improved.
  - a) The local leader should be backed up with good professional help. More use should be made of all good teaching devices—especially of the most productive device, the method demonstration.
  - b) The Home Demonstration Program should use methods such as dramatization and case conference techniques to make the presentation of the less tangible subjects more concrete.
  - c) Where possible, the program should encourage wider use of face-to-face contacts such as home visits by the extension agent or local leader. Club members should be urged to take information to nonparticipating families, and to invite nonparticipants to attend meetings, tours, and clinics.
  - d) More use should be made of those methods which bring information directly into the home—the local press, the radio, leaflets, service letters to mothers of young children, and loan kits. Literature should be presented simply and graphically so that the less well educated can read and comprehend it.
15. To use effectively this larger variety of teaching methods, extension agents should be adequately trained in adult teaching techniques.
16. Agents should be more adequately supervised by well trained and experienced supervisors.
17. The number of home demonstration agents should be tripled. Although the average county has over 2,000 farm families, the average agent works with but 900 families. At present, the average agent has so many families to deal with that she is almost forced to work with those who are easiest to meet rather than those who most need her services. To serve the 6,500,000 farm families a minimum of 7,000 home demonstration agents are needed instead of the 2,092 now employed.



This study has revealed the many considerable and worthy achievements of a great educational organization serving the rural families of the nation. Much has been found to commend. However, the writer has not been as interested in the many strengths of the organization as in the discovery of ways and means of improving it. It would be unfortunate if this focus upon weaknesses should lead the reader to underestimate the tremendous positive influence of the Home Demonstration Program. Nevertheless, like all growing social institutions, it must continually adapt itself to the changing conditions affecting the people that it serves. It is hoped that this study will be of some value in promoting this end.

